

LIVES ACROSS BORDERS: AN EXPLORATION OF WOMEN'S  
REPRODUCTIVE LIVES, INTIMATE RELATIONSHIPS, AND  
SPOUSAL LABOR MIGRATION IN NEPAL

by

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## Abstract

**Background:** In a transnational and mobile world, people's lives are increasingly understood in the context of relationships and connections that span internal and international borders. In Nepal, men's migration for work has a long and complex history, and the country remains highly dependent on remittances sent back by Nepali workers living and working in other countries. Research and programs have often failed to investigate the ways in which labor migration may impact the lives of women and families who do not migrate. Labor migration fundamentally restructures households and household gender dynamics, which may have important implications for not only women's intimate relationships with their partners, but also their reproductive lives and family planning practices.

**Methods:** This study drew on both qualitative and quantitative methods to explore how spousal labor migration restructures women's intimate relationships and reproductive lives in Nepal. Semi-structured interviews were conducted with twenty women with labor migrant spouses to explore effects of migration on household functioning, gender dynamics, and family planning practices. Women from Dhading district were interviewed twice in spring 2016. Deductive and inductive approaches were used to develop a coding framework and code the qualitative interview data. Analyses were informed by the framework method and compared responses within individual transcripts and between participants to identify major themes. Quantitative analyses of the Nepal Health Communication Capacity Collaborative (HC3) Project's baseline survey were used to examine associations between women's spousal labor migration experience and 1) contraceptive use and 2) partner communication about family planning. Responses from

married women of reproductive age (18–49) with a child under five who were not sterilized at baseline were the focus of all analyses (n=1793).

**Results:** Among women in Dhading, spousal labor migration was driven by the lack of economic opportunities available to men in both rural and urban areas. Such work-related separation affected women's reproductive lives in multiple ways, as their husbands' migration reinforced their responsibility over reproduction and reproductive work, affected contraceptive use dynamics, and led to household and community suspicions about women's extramarital relations and infidelity that affected women's daily lives. During a husband's absence, women remained in contact with their husbands by phone and Internet. Timing of such communication was structured around men's schedules, with conversations frequently focused on their children. Women highlighted how they often delayed conversations about future childbearing or contraceptive intentions until after their husbands returned. In quantitative analyses, women whose husbands were currently migrating were significantly less likely to report 1) currently using either a modern or traditional contraceptive method and 2) having recently communicated with their husbands about family planning. Variations were evident when current spousal migration was disaggregated by characteristics including destination and duration. There were no significant differences between women whose husbands had migration experience but were not currently migrating and women with non-migrant spouses. Negative associations between spousal labor migration experience and partner communication about family planning remained significant even after adjustment for frequency of communication while the husband was away.

**Conclusions:** Labor migration experience is an integral component of women’s social locations in Nepal and is implicated in their intimate relationships with their spouses and their reproductive lives. Future research and programs designed to address women’s reproductive health in Nepal should acknowledge the transnational social fields of Nepali women seemingly “left behind.” As a result, improved metrics of family planning use and the design of interventions that acknowledge how labor migration reorients women’s intimate relationships and reproductive needs are urgently needed.

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## Dedication

To my Mom, who taught me to reach for the Moon.

***“Women have reached the moon and climbed Mt. Everest.  
What have women not done in this world!  
They go to school and also to the battlefield,  
If they get the chance women can do anything.”***

- A selection from “Tij is our festival,” a social commentary song sung by women during Tij. Tij is a festival in the fall that celebrates women. Songs sung by women during this festival often challenge women’s suffering and inequities in Nepal (Skinner et al., 1994, p. 281).

## Acknowledgements

*“The concrete incidents of women’s everyday lives can evoke glimpses of other ways of living, other ways of using time, other ways of conveying the sense of menstruation, birth, and menopause” (Martin, 2001, pp. 201-202).*

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## Glossary of terms

<b>Cohabitation</b>	Cohabitation or cohabitating is used to refer to a woman currently living with her spouse and is often contrasted with women who are currently living separately from their spouses or women “left behind.”
<b>Contraceptive prevalence rate</b>	The contraceptive prevalence rate (CPR) is the percentage of women of reproductive age, often married women of reproductive age, who report currently using a contraceptive method. This can be based on use of any method (including both traditional and modern methods) or modern contraceptive methods only (PRH, n.d.-a). This is measured at a specific time, such as when a survey is administered.
<b>Dhading</b>	Dhading is one of 75 districts in Nepal. Dhading is located to the west of Kathmandu and is in the central development region. Dhading is primarily in the hill ecological zone.
<b>District</b>	Nepal is divided into 75 districts. Each district has a district headquarters and is composed of smaller village development committees (VDCs) and municipalities or wards. Each district has a local governing body called a “coordinating committee.”
<b>District health office</b>	Within each district, a district health office (DHO) administers local health posts, sub-health posts, primary health care centers (PHC centers), outreach clinics, and EPI clinics, which together provide community-level preventive and treatment services in each district (Chand & Kharel, 2015).
<b>Ecological zone</b>	There are three ecological zones in Nepal: mountain zone, hill zone, and <i>terai</i> (plains) zone. These zones are used to refer to the general geological features of the country. Mountain zones are not densely populated and face accessibility challenges for research, while hill and <i>terai</i> (plains) zones have larger populations and are more accessible by vehicle. The mountain zone refers to the Great Himalayas, while the hill zone refers to the ranges of mountains between the Mahabarat range and the Great Himalayas. The <i>terai</i> zone is the plains region that abuts the border with India (Rose et al., 2016).
<b>Family planning services</b>	According to the World Health Organization, family planning services include contraceptives and infertility treatments (WHO, 2013). In this dissertation, family planning services refer specifically to contraceptive methods. “Family planning practices” is used to describe the process of reproductive decision-making, with a primary focus on contraceptive use and how it relates to decisions and behaviors related to and affecting family size.

<b>Female community health volunteer</b>	Female community health volunteers (FCHVs) are women who volunteer in their local communities. These women are trained on a variety of health-related topics ranging from family planning to maternal health to nutrition and immunization. Female community health volunteers organize local mothers' group meetings, provide services and referrals, and link women with community healthcare services when necessary (Schwarz et al., 2014).
<b>Field supervisor</b>	The field supervisor is a member of the Health Communication Capacity Collaborative (HC3) district team responsible for district-level implementation activities. Field supervisors manage peer facilitators in each district, organize local activities, and support monitoring and evaluation at the district level.
<b>Gender equity</b>	Gender equity is understood as fairness based on individuals' gender and aims to address historical processes of discrimination and marginalization in efforts to eliminate inequalities that exist on the basis of gender (UNESCO, 2003; UNFPA, 2005).
<b>Globalization</b>	Globalization is understood to be the process through which the world is increasingly interconnected as materials, goods, people, technology, cultural products, and other "scapes" (Appadurai, 1996) move inequitably between places with different relations of power. Globalization is not understood as necessarily a homogenizing force (Benyon & Dunkerley, 2014).
<b>Health Communication Capacity Collaborative Project</b>	The Health Communication Capacity Collaborative (HC3) Project is a five-year USAID-funded project aimed to improve access to and use of family planning services among couples of reproductive age in Nepal. The Project is a communication intervention that includes both a national-level communication campaign and district-level in-person activities. Program messages and activities focus on young couples, migrants, and marginalized populations in Nepal in particular (HC3, 2014).
<b>Hill ecological zone</b>	The hill ecological zone is the middle climate zone between the <i>terai</i> (plains) and the mountain zones. The hill zone begins with the Mahabarat mountain range, which are a set of foothills to the Himalayas. Hills in this zone range from 8,000 to 14,000 feet in elevation, and this zone includes valleys like the Pokhara and Kathmandu Valley (Rose et al., 2016).
<b>Household gender dynamics</b>	Household gender dynamics refer to the interactions and relations between women and men that take place within the household context. These interactions and relations reflect larger socio-cultural norms about femininity, masculinity, and women's and men's roles and responsibilities and are the product of existing relations of power within the household (USAID, 2001). In this dissertation, "gender dynamics" is used in place of terms like empowerment, autonomy, relations, or norms to emphasize 1) the interrelationship between these concepts and 2) that empowerment, gender norms, and relations are dynamic <i>processes</i> , rather than static concepts (Malhotra et al., 2002).

<b>Infidelity</b>	Infidelity is used in this dissertation to refer to the engagement in, or suspicions of, extra-marital relations.
<b>International development</b>	This term is used to refer to efforts by the United States and other nation states to promote economic and social well-being, build international relations, and promote national interests (USAID, 2017). Health is a key component of these efforts. Family planning is a historically important component of health-related development, particularly for women (Jaquette & Staudt, 2006).
<b>Intimate economies</b>	Wilson (2004)'s coined term "intimate economies" is focused on the ways in which intimate relationships, including sexual relations as well as interactions between intimate partners or other family members/kin, are reconstructed in local settings as individuals encounter global political and economic forces in local spaces and times (Wilson, 2004). In this dissertation, "intimate economies" is used to explore how spousal labor migration is implicated in Nepali women's reproductive lives, including their responsibility over reproductive work, family planning practices, and narratives of infidelity in the absence of their spouses.
<b>Intimate relationships</b>	Intimate relationships are referred to in this dissertation as the ways in which women establish intimacy in their relationships with their spouses. Intimacy is understood as both physical and emotional and therefore refers not only to sexual relations between partners but also to the development of closeness (Walsh, 2009). This understanding is clarified by Walsh (2009) in her exploration of transnational intimacy in the lives of British migrants in Dubai.  <i>"The idea of closeness – emotional and physical – is central to our understandings of intimacy. We conceptualise key sites of intimacy – the inter-personal relationships of friendship, family and the couple – as being constituted through the everyday routines of localised sites of body, home and neighbourhood" (Walsh, 2009, p. 427).</i>  In this dissertation, relationships between women and their migrating spouses are the focus of analysis. Partner communication and interactions are the primary avenue through which the construction of intimacy between women and their migrating spouses is explored in this dissertation.
<b>Labor migration</b>	Labor migration is used to refer to migration, either internal or international, away from home for the purposes of work. The definition of labor migration used in this dissertation is an absence from the household of at least three consecutive months within the past five years for the purposes of work.
<b>Migration</b>	Labor migration experience is the focus of this dissertation. As a result, the use of the term migration or migrant refers to labor migration unless otherwise specified.



<b>Partner communication</b>	Partner communication is the primary avenue through which intimate relationships are explored in this dissertation. Partner communication is an important measure often used to operationalize not only intimate relationships, but also household gender dynamics (Malhotra et al., 2002; Pratley, 2016).
<b>Peer facilitator</b>	Peer facilitators are part-time employees of the HC3 district team and are responsible for community outreach as part of the HC3 Project in local communities. As part of this outreach, peer facilitators talk with women, facilitate or aid them in securing family planning services through referrals, and assist in district-level activities.
<b>Reproductive health</b>	<p>According to the World Health Organization (WHO):</p> <p><i>“Reproductive health, therefore, implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so” (WHO, 2017, p. 1).</i></p> <p>As evidenced in this definition, access to and autonomy in the use of family planning methods is an essential component of reproductive health. An important measure or indicator of reproductive health is CPR (PRH, n.d.-d).</p>
<b>Reproductive lives</b>	The term “reproductive lives” incorporates the shifting processes through which women become pregnant or use a family planning method. This term is used in this dissertation to acknowledge the dynamic processes through which reproductive decisions and practices take place in women’s lives (Brunson, 2016). Other researchers have used terms like “reproductive dilemmas” (Collantes, 2016) or “reproductive projects” (Brunson, 2016) to address such assumptions and to critique issues of assumed rationality or intentionality (Fordyce, 2012). In this dissertation, the general “reproductive lives” is used instead of these more recently proposed terms to acknowledge the limitations of public health’s assumptions about women’s reproductive health. The concept of “reproductive lives” is used in this dissertation to refer to responsibilities over childbearing and other reproductive work as well as family planning practices and narratives of infidelity that restructure women’s daily lives. It is operationalized as family planning practices for the purposes of quantitative analysis.
<b>Reproductive work</b>	Reproductive work is used to refer to work often separated from productive, formal labor market participation or wage-earning work (Chodorow, 1999; Martin, 2001; Pearson, 2000; Smith, 2013). In particular, reproductive work is used to refer to responsibilities and roles traditionally allocated to women and includes reproduction and childbearing as well as childrearing, nurturing, and other domestic roles.

<b>Social locations</b>	<p>Social locations refer to the unique, intersecting aspects of women's positions within society (Pessar &amp; Mahler, 2003) that affect their access to resources, opportunities, and daily lives and therefore play important roles in intimate relationships and reproductive lives.</p> <p>Components of these social locations relevant in the Nepali context include socio-demographic characteristics such as age, parity, caste/ethnic group, rural/urban residence, educational level, household gender dynamics, household composition and structure (including joint/nuclear households and marriage type), economic opportunities based on employment and household wealth, etc.</p>
<b><i>Terai</i> ecological zone</b>	<p>The <i>terai</i> ecological zone is a zone composed primarily of plains and lies to the south of the Mahabarat mountain range and borders India. This zone was originally affected by Malaria, but eradication efforts in the mid-20<sup>th</sup> century led to significant hill-to-<i>terai</i> migration. Today, the <i>terai</i> is the home to the majority of the population in Nepal (Rose et al., 2016).</p>
<b>Total fertility rate</b>	<p>Total fertility rate (TFR) is the expected children a woman would have if she were subject to each of the current age-specific fertility rates throughout her childbearing years (PRH, n.d.-b).</p>
<b>Transnational social fields</b>	<p>Levitt et al. (2004)'s conceptualization of transnational social fields is rooted in Pierre Bourdieu's understanding of social fields, which holds that social fields are the manifestation of intersecting social relationships and interactions that are the product of inequitable power relations (Levitt &amp; Schiller, 2004; Nedelcu, 2012). Transnational social fields remove assumptions of "methodological nationalism" (Amelina &amp; Faist, 2012; Levitt &amp; Schiller, 2004; Nedelcu, 2012) and instead highlight the ways in which social relationships are constructed across time and space and lead to the exchange of multiple "scapes" (Appadurai, 1996; Levitt &amp; Schiller, 2004; Pessar &amp; Mahler, 2003). In this dissertation, the transnational social fields perspective facilitates a focus on the ways in which migration is experienced by migrants themselves as well as those "left behind" (Glick-Schiller et al., 1992; Hannaford, 2015; Levitt &amp; Schiller, 2004).</p>
<b>Unmet need</b>	<p>Unmet need is defined as the percentage of fecund women who report either wanting to delay or prevent future pregnancy but who report not currently using a contraceptive method. Unmet need is often disaggregated into unmet need for spacing and unmet need for limiting based on whether women report wanting to delay (unmet need for spacing) or prevent (unmet need for limiting) future pregnancy (PRH, n.d.-c).</p>
<b>Village development committee</b>	<p>Village development committees (VDCs) are local regions within districts, similar to counties within the United States, wherein services are often disseminated.</p>

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<b>Women “left behind”</b>	The term women “left behind” is used to refer to women whose husbands had labor migration experience and were currently migrating for work and therefore living away from home at the time of the interview (either qualitative or quantitative). Assumptions about women’s passivity associated with this term are critiqued in Chapters 2, 4, and 5. This term is used to reference the existing literature on this topic and situate this research project within that literature. This study therefore rejects assumptions of women’s passivity in their spouse’s labor migration.
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## List of abbreviations

AIC	Akaike Information Criterion
AOR	Adjusted odds ratio
BIC	Bayesian Information Criterion
BTS	Bibhu Thapaliya Shrestha
CCP	Johns Hopkins Center for Communication Programs
CI	Confidence interval
CQSHM	Center for Qualitative Studies in Health and Medicine
CPR	Contraceptive prevalence rate
DHO	District health office
EA	Enumeration area
EFA	Exploratory factor analysis
FCHV	Female community health volunteer
FP2020	Family Planning 2020
FSW	Female sex worker
GDP	Gross domestic product
HBS	Health, Behavior and Society Department
HC3 Project	Health Communication Capacity Collaborative Project
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
ICT	Information and communications technology
IRB	Institutional Review Board
IUD	Intrauterine device
JHSPH	Johns Hopkins Bloomberg School of Public Health
mHealth	Mobile health
MWRA	Married woman of reproductive age
NDHS	Nepal Demographic and Health Survey
NDHS-11	Nepal Demographic and Health Survey 2011
NHRC	Nepal Health Research Council
OR	Odds ratio
PCA	Principal component analysis
PHC Center	Primary health care centers
PPS	Probability proportional to size
SBCC	Social and behavior change communication
SL	Sandhya Lohani
STI	Sexually transmitted infection
TFR	Total fertility rate
USAID	United States Agency for International Development
USD	United States Dollar (\$)
VaRG	Valley Research Group
VDC	Village development committee
WHO	World Health Organization
ZH	Zoé Hendrickson

## Chapter One: Introduction

*“Despite unprecedented levels of transnational migration and global flows of communication, commodities, and medical technologies, there remains a dearth of creative, new anthropological [and public health] research investigating the impact of these processes on human reproductive activities” (Browner & Sargent, 2011, p. 1)*

Browner & Sargent (2011)’s call to action remains highly relevant in a world increasingly characterized by transnational mobility. In countries like Nepal, where approximately one-third of women were living separately from their spouses in 2011 (Khanal et al., 2013), labor migration may shift household gender dynamics and intimate relationships (Adhikari & Hogley, 2015; Chapagain, 2015; Gartaula, 2013b; Gartaula et al., 2012; Giri & Darnhofer, 2010; Kaspar, 2006; Lokshin & Glinskaya, 2009; Thieme & Müller-Böcker, 2010) and may play important roles in the reproductive practices of couples living apart for the purposes of work (Ban et al., 2012; CREHPA, 2012; Khanal et al., 2013; Uprety et al., 2016). Although labor migration has been proposed as one of the primary reasons for the recent stagnation in contraceptive use in Nepal (Shrestha et al., 2012), further investigation of this relationship and the effects of spousal labor migration on women’s reproductive lives is needed to inform current and future family planning programs and policy in Nepal. In addition, little research in Nepal has investigated the ways in which men’s labor migration affects aspects of intimate relationships like partner communication (CREHPA, 2012; Gartaula et al., 2012), despite the knowledge that more equitable household gender dynamics, such as greater partner communication, are associated with increased use family planning services and improved reproductive health outcomes (Link, 2011; Pratley, 2016; Yue et al., 2010). Together, research is needed to understand how labor migration affects intimate relationships



between spouses and the implications these changes may have on family planning practices and women's reproductive lives.

To address these gaps, this dissertation used both qualitative and quantitative research methods to explore the intersections of labor migration, intimate relationships, and the reproductive lives of women in Nepal. The research aims for this study were:

**Aim 1:** To qualitatively explore how women's reproductive lives are affected by their partners' labor migration.

**Aim 2:** To qualitatively explore the nature and content of women's interactions with their absent spouses and examine whether and how women discuss reproductive work (e.g. childrearing or family planning) with their labor migrant spouses.

**Aim 3:** To quantitatively examine the association between spousal labor migration experience and 1) women's reproductive lives (as measured by current use of a contraceptive method) and 2) women's intimate relationships with their labor migrant spouses (as measured by partner communication about family planning).

## Overview of dissertation chapters

To accomplish these research aims, this dissertation includes seven chapters that explore Nepali women's intimate relationships and reproductive lives. Chapter 2 includes

a critical review of reproduction and migration in a global world. This overview of the literature is used to frame a detailed discussion of the gaps in evidence, how this study's research aims address these gaps, and the conceptual framework that guides this research project. Chapter 3 describes the research setting and the qualitative and quantitative methods that were used in this dissertation.

Chapters 4, 5, and 6 highlight the results that correspond with the three aims described above. Chapter 4 examines the intimate economies of labor migration in Nepali by exploring the multiple ways in which the economic factors that lead men to migrate for work are implicated in the reproductive lives, including the family planning practices, of women “left behind” in Nepal. Chapter 5 investigates how women's intimate relationships with their migrant spouses shift through a focus on transnational communication. This chapter explores women's interactions with their husbands, whether and how they discuss reproductive work, and what these shifts may mean for women's reproductive health. Chapter 6 further elucidates the association between spousal labor migration experience and 1) women's contraceptive use and 2) partner communication about family planning topics through a quantitative investigation of household gender dynamics and reproductive practices in a large household-based sample of women with and without spousal labor migration experience. Finally, Chapter 7 discusses these findings and outlines their theoretical, research, and programmatic and policy implications for future work at the intersections of labor migration, intimate relationships, and reproduction in Nepal and elsewhere.

## **Chapter Two: Reproduction and migration in a global world:**

### **A critical review**

This chapter critically reviews the literature on reproduction and migration in a global world. Part I provides an introduction to family planning and gender dynamics in the context of international development. Current family planning trends and programs in Nepal are provided as examples to illustrate how gender dynamics and family planning are integrated into international development programs in countries around the world. Part II presents details on labor migration in Nepal to frame a discussion of the theoretical approach this study takes to the exploration of migration and reproduction in Nepal. Then, Part II reviews existing evidence on the ways in which labor migration 1) affects sexual and reproductive health of migrants and their partners and 2) shifts and restructures household dynamics, including gender dynamics and intimate relationships between women and their migrating spouses. In light of the gaps in evidence identified in Parts I and II, Part III discusses the aims of this dissertation in depth and outlines the key components of this dissertation's guiding conceptual framework.

### **Part I. Family planning, gender dynamics, and international development**

Greater access to family planning services<sup>1</sup> improves women's reproductive health outcomes through multiple avenues (Gipson et al., 2008; Tsui et al., 2010; WHO,

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<sup>1</sup> According to the World Health Organization, family planning services include contraceptives and infertility treatments (WHO, 2013a). In this dissertation, family planning services refer specifically to contraceptive methods. "Family planning practices" is used to describe the process of reproductive

2013a, 2013b). Use of family planning methods may reduce unintended pregnancies, leading to improved maternal and infant morbidity and mortality as well as reduced engagement in risky abortion practices (Gipson et al., 2008; Tsui et al., 2010). Family planning methods may also be used to increase spacing between pregnancies, which is also associated with improved maternal and infant health outcomes (Conde-Agudelo et al., 2012; Conde-Agudelo et al., 2007; Tsui et al., 2010). In light of the public health impacts of increased access to and use of family planning services, international development agencies have included family planning and reproductive health as major pillars of their recent strategic plans (UN, 2013, 2015). The previous Millennium Development Goals (UN, 2013) as well as the Sustainable Development Goals (UN, 2015) demonstrate the global commitment to improving women's reproductive health and access to and use of family planning services.

Despite their demonstrated effects on women's reproductive health outcomes, family planning policies have a complex history (Pigg, 2005). Suspicion and mistrust from women and families as well as concerns about the use of population control policies to further political, nation-building, and economic goals have been widespread (Bongaarts & Sinding, 2009; Ginsburg, 1995; Hartmann, 1995; Pigg, 2005). Population control programs in the 20<sup>th</sup> century were based on medical advances pioneered in conjunction with the eugenics movement (Dutta, 2016; Pigg, 2005) and have been criticized for failing to acknowledge women's fertility desires or reproductive agency (Bongaarts & Sinding, 2009; Browner, 2011; Jaquette & Staudt, 2006). In the 1990s, "population control" was reframed as "family planning" and "reproductive health" to

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decision-making, with a primary focus on contraceptive use and how it relates to decisions and behaviors related to and affecting family size.

attempt to pivot away from the coercive and colonial history of population control (Dutta, 2016; Lane, 1994). Despite changes in language, these programs have routinely been critiqued due to their reliance on top-down methods (Brunson, 2016; Maternowska, 2006) to communicate narratives about family planning and contraceptive use that are primarily western-based and often not relevant to the socio-cultural, religious, kinship, or economic contexts within which women live (Browner, 2011; Brunson, 2016; Pigg, 2005). Due to the financial support attached with such programs (Brunson, 2016; Justice, 1989; Maternowska, 2006), low- and middle-income countries, such as Nepal, are often incentivized to work within the existing frameworks developed by international funders. In the next section, the family planning program in Nepal is used as an illustrative case to explore the role of international funders in family planning efforts.

### *Addressing the family planning practices of women in Nepal*

Improving access to and use of family planning services has been an official policy of the Government of Nepal since the mid-1960s (Shrestha et al., 2012; Thapa, 1989). To address population growth, the Government of Nepal has made domestic and international commitments to increase access to family planning services, including their recent FP2020 commitment to increase funding for family planning by at least 7% in the next five years (ADB, 2010; FP2020, 2016; Shrestha et al., 2012; Thapa, 1989). The Ministry of Health and Population oversees the family planning program, which works to ensure the availability of temporary, long-acting, and permanent contraceptive methods at government-run health posts, through primary health care clinics, and to health workers at the community level (Shrestha et al., 2012). Methods requiring a provider, including

intrauterine devices (IUDs), implants, or sterilization, are provided at hospitals, primary care clinics, or mobile clinics (Shrestha et al., 2012).

International funders have a long history of working in Nepal (Davis, 2014; Dutta & Basnyat, 2008; Leve, 2001; Pigg, 2001). Public health programs have explicitly focused on reproductive health, family planning services, and population growth, with USAID and other international development organizations collaborating with the Government of Nepal to implement national programs such as the Nepal Family Health Program or the Nepal Family Planning Service Strengthening Program to improve the health sector in Nepal on both the supply and demand sides (USAID, 2015a, 2015b). National communication interventions like the Radio Communication Project have targeted community members and healthcare workers to increase use of family planning services and improve perceptions of and relationships with healthcare providers (Dutta & Basnyat, 2008; Storey et al., 1999). These programs have been designed to move away from the top-down dissemination of information to work with communities using a more participatory approach to communication (Jacobson & Storey, 2004; Storey et al., 1999).

With the implementation of family planning programs by both the Government of Nepal and international development organizations, contraceptive use has increased dramatically in Nepal since the 1960s (Shrestha et al., 2012). However, the contraceptive prevalence rate (CPR)<sup>2</sup> and unmet need<sup>3</sup> changed little between 2006 and 2011 (Khanal et al., 2013; Wang et al., 2013). Data from the 2011 Demographic and Health Survey

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<sup>2</sup> CPR is calculated based on the prevalence of contraceptive use among women of reproductive age. This can be based on use of any method (including both traditional and modern methods) or modern contraceptive methods only. In many countries, CPR is calculated for women with consistent sexual partners (PRH, n.d.-a).

<sup>3</sup> Unmet need is the proportion of women of reproductive age not using a contraceptive method but who want to 1) delay future pregnancy or 2) prevent further pregnancies (PRH, n.d.-c).

(NDHS-11) indicated that 43% of married women were currently using a traditional or modern method of contraception (Wang et al., 2013), while 27% of married women had an unmet need for family planning (Khanal et al., 2013; WHO, 2013a). Despite domestic and international commitments that prioritize family planning policies, barriers to universal access to quality family planning services, including poor method mix, exist in Nepal (Gubhaju, 2009). Women in rural areas, from households with lower wealth, and from more marginalized groups face significant barriers to accessing and using family planning services (Shrestha et al., 2012; CRR, 2013). Recent studies have shown that labor migration may also impact family planning practices and CPR in Nepal (Bam et al., 2013; Ban et al., 2012; Khanal et al., 2013).<sup>4</sup> Further research is needed to understand the barriers to contraceptive use that may explain why the CPR and unmet need have stalled.

### *Gender dynamics as a component of family planning and international development*

The incorporation of women's empowerment, gender equity, and gender equality into family planning and reproductive health discourse has attempted to address many of the concerns with family planning programs and international development discussed above by emphasizing the importance of women's agency and reproductive autonomy (Lane, 1994). Gaining political and popular attention in 1994 at the International Conference on Population and Development in Cairo, Egypt, efforts to address gender inequities in development programs have led to the incorporation of gender and women's empowerment into health and development priorities (Beetham & Demetriades, 2007;

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<sup>4</sup> The intersections of labor migration and family planning are explored in more depth in Part II.

Jaquette & Staudt, 2006; Razavi & Miller, 1995). International family planning efforts are now often framed in conjunction with gender equality and empowerment (UNFPA, 2017). A concrete example of this discourse can be found on the United Nations Population Fund (UNFPA)'s "family planning" webpage, which states, "Family planning is central to gender equality and women's empowerment, and it is a key factor in reducing poverty" (UNFPA, 2017).

This integration of gender into public health and development has led to the proliferation of research on women's empowerment, gender equity, household gender dynamics, and gender norms (Corroon et al., 2014; Do & Kurimoto, 2012; Jennings et al., 2014; Malhotra et al., 2002; Upadhyay et al., 2014). Studies of women's empowerment, the term commonly used in public health research, have highlighted how empowerment is linked to women's agency and access to opportunities and resources that are influenced by interpersonal, household, community, and societal level gender inequities and norms (Malhotra et al., 2002; Upadhyay et al., 2014). However, women's empowerment remains difficult to measure; women's status (e.g. education or access to employment), mobility, functional autonomy, relationship power, household gender dynamics, women's leadership roles, and gender equitable attitudes have all been used to assess women's roles and relative positions within society (Blanc, 2001; Malhotra et al., 2002; Pratley, 2016; Upadhyay et al., 2014). Pratley (2016)'s recent systematic review, which drew on Malhotra et al. (2002)'s framework for gender empowerment, highlighted how the health effects of women's psychological, economic, and social empowerment were measured most commonly by indicators assessing involvement in decision-making, exposure to violence, education levels, partner communication about family planning, and mobility.



These indicators reflect the multi-dimensionality of women's empowerment, which is composed of various forms of economic, social, and political empowerment (Jennings et al., 2014; Malhotra et al., 2002; Na et al., 2015) and influenced by gendered relations of power demonstrated at multiple levels, "including within households and families, communities, neighbourhoods, and wider society" (Keleher & Franklin, 2008, p. 43). In this dissertation, "gender dynamics" is used instead of terms like empowerment, autonomy, relations, or norms to emphasize 1) the interrelationship between these concepts and 2) that empowerment, gender norms, and relations are dynamic *processes*, rather than static concepts (Malhotra et al., 2002).

Despite the challenges to measurement, a large body of literature has explored the effects gender dynamics have on health, particularly reproductive health. Higher levels of education and employment have been shown to be associated with greater likelihood of using contraception, reduced unmet need, and greater use of other services like maternal healthcare (Al Riyami et al., 2004; Furuta & Salway, 2006; Wado, 2013). Partner communication about topics like family planning, which has often been used as a measure of equitable relationships, is strongly related to family planning utilization (Bawah, 2002; Link, 2011; Pratley, 2016). Men's and women's gender equitable attitudes, including their attitudes towards women's roles, autonomy, freedom of movement, use of family planning, or exposure to violence are also positively associated with contraceptive use and reduced HIV risk behaviors (Mishra et al., 2014; Waszak et al., 2001). Importantly, women's status and power relations are implicated in the health outcomes of not only women (Upadhyay et al., 2014) but their children and households as well (Pratley, 2016). Increased empowerment, including psychological, social, and

economic, have shown significant, positive associations with women's utilization of family planning, use of healthcare services, health status, and maternal and child morbidity and mortality (Pratley, 2016).

As a result, family planning, reproductive health, and maternal health programs have incorporated gender sensitive or gender transformative approaches into their messaging with varied success (Greene & Levack, 2010; Hartmann et al., 2012; Wegs et al., 2016). Encouraging or prioritizing partner communication remains a common approach for such programs (Mwaikambo et al., 2011). Evidence of positive associations between partner communication and family planning utilization has often been translated into programs that encourage communication between spouses and the integration of men into family planning decision-making (Hartmann et al., 2012; Wegs et al., 2016).

Despite this evidence, a substantial body of work exists critiquing the integration of gender into development and the use of terms like “gender norms,” “gender relations,” “gender dynamics,” or “women's empowerment.” Cross-cultural research on gender norms has faced challenges in the development of appropriate, culturally relevant indicators that examine how women and men interact in society and the relative power they exert in their daily lives (Mumtaz & Salway, 2009). Often this is due to the absence of the perspectives of women from societies within which the research is being conducted (Dutta 2016). As Leve (2001) argued, it is through the creation of quantitative indicators that equality and empowerment are made to “conform to predictable, measurable, and verifiable forms of subjectivity,” thereby restricting experiences of equality to a single, often western-centric reference point (Leve 2001, p. 114). This limitation necessitates qualitative analyses that explore the applicability or utility of such notions of “autonomy”

and “empowerment” in non-western contexts like Nepal. Although systematic reviews have highlighted robust evidence illustrating that more empowered women or women in more gender equitable relationships have higher contraceptive use and improved reproductive health outcomes (Pratley 2016; Upadhyay et al., 2014), we must acknowledge the assumptions inherent to the conclusions that we draw from these quantitative associations. Further investigations of how such measures of gender norms or dynamics are differentially experienced by women from different social locations are therefore necessary.

### **Incorporating gender dynamics into family planning and international development in Nepal**

International development programs working in Nepal often take a gender lens or gender inclusive approach to efforts designed to address women’s reproductive health (USAID, 2015a). Development programs have focused on improving the status of women in Nepal to reduce maternal mortality and address concerns over population growth (Dutta & Basnyat, 2008; Leve, 2001). These projects often address inequalities in education, literacy, and healthcare to improve the status of women and reduce poor health outcomes and family size (Davis, 2014). Spousal communication has been the focus of several interventions designed to increase family planning use (Sharan & Valente, 2002; Storey et al., 1999). In addition to these health-focused development efforts, gender mainstreaming programs have also been designed to integrate women into the existing, formal economy (ABD, 2010; Leve, 2001; Davis, 2014).

Although this international commitment has had lasting effects on the domestic agenda in Nepal, inequalities in access to reproductive healthcare, as well as socio-cultural gender norms that inhibit women's information seeking and healthcare utilization, continue to prevent the realization of gender inclusive or transformative policies in Nepal (ADB, 2010). At the same time, anthropologists in Nepal have frequently critiqued the ideologies, often western-based, that can permeate narratives of international development projects (Davis, 2014; Dutta & Basnyat, 2008; Leve, 2001; Pigg, 2001). Western influences affect what aspects of women's status or women's empowerment are prioritized – such as labor market participation, partner communication, decision-making power, or women's mobility – rather than other forms of exclusion faced by women (Mumtaz & Salway, 2009). Program narratives therefore may fail to be locally informed or may draw on theories or ideologies that fail to acknowledge the role of structural inequalities that may have a more profound impact on women's access to and use of family planning services (Bastia, 2014; Dutta & Basnyat, 2008).

Such a programmatic focus on women's status and women's empowerment ignores how access to and utilization of family planning services may be impacted by other components of women's social locations (Pessar & Mahler, 2003), such as differences in age or caste/ethnic group (Basnyat & Dutta, 2011; Bastia, 2014). Evidence suggests that contraceptive use varies across socio-demographic groups in Nepal (Sharan & Valente, 2002; Sharma et al., 2011). Researchers have identified how geographic location, household wealth, religious affiliation, and caste/ethnic group are associated with use of contraception (Bennett et al., 2008; Pandey et al., 2013; Raj et al., 2013;

Sharma et al., 2011; Yue et al., 2010). In Nepal, individuals from rural areas, people living in households with lesser wealth, Muslim populations, and Dalits<sup>5</sup> often report lower utilization of contraception than individuals in non-rural areas, from households with greater wealth, non-Muslims, and those from higher castes (Bennett et al., 2008; MOHP et al., 2012; Pandey et al., 2013; Raj et al., 2013; Sharma et al., 2011).

Researchers have also shown how important indicators of gender dynamics within the household, such as partner communication or equitable decision-making, differ across socio-demographic groups and impact contraceptive use (Bennett et al., 2008; Sharan & Valente, 2002; Yue et al., 2010). More marginalized groups, including those from lower castes and poor and illiterate populations, communicate less about health-related issues than other populations (Yue et al., 2010). Further research is needed to examine how gender dynamics intersect with other social locations, such as being a spouse who remains behind as one's partner migrates for work, to affect family planning practices.

### *Summary and research gaps*

Through an overview of the role of family planning in international development efforts, this section highlighted the intersections of global politics and family planning programs (Bongaarts & Sinding, 2009; Ginsburg, 1995; Hartmann, 1995; Pigg, 2005). At the same time, this section emphasized the incorporation of gender-related concerns into international development approaches and the ways in which gender dynamics at multiple levels are associated with the health and livelihoods of women and their families (Pratley, 2016; Upadhyay et al., 2014). Following decades of international development

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<sup>5</sup> Dalits are a historically marginalized caste and continue to be subjected to discrimination in Nepal (Bam et al., 2013; Bennett et al., 2008).

funding addressing gender dynamics and supporting family planning and reproductive health in Nepal, Nepal serves as a useful setting within which to understand the myriad ways in which women's social locations are related to their family planning practices (Shrestha et al., 2012). Importantly, this section highlighted several gaps in understanding. First, there is a need for researchers to be more critical and thoughtful about international development and health programs and the homogenizing assumptions they make about gender dynamics and women's reproductive health needs (Dutta, 2016; Leve, 2001). As a result, researchers must continue to elucidate how gender dynamics are experienced and reproductive needs vary by women from different social locations. Secondly, in light of the recent stagnation in national-level fertility and family planning trends in Nepal, further investigation of the factors that affect contraceptive use and other family planning practices is necessary. With labor migration leading to substantial rates of spousal absence across Nepal (Khanal et al., 2013; Shrestha et al., 2012), spousal labor migration is an important aspect of women's social locations in need of further exploration. Part II explores this phenomenon in depth.

## **Part II. Labor migration and intimacy in a transnational world: A review of the literature**

Part I illustrated how global development discourses on gender and family planning exist within and in conjunction with larger global economic relations between governments and countries. Investment in development has been criticized for its political motivations, top-down priority setting that can lead to ineffective, unsustainable practices (Pigg, 1993; Pigg, 2005), and the failure to acknowledge the lived, local perspectives

through which development is understood and experienced (Justice, 1989; Pigg, 1993). It is within this unequal and uneven global setting that the movement of goods, services, ideas, and people has proliferated (Appadurai, 1996; Benyon & Dunkerley, 2014). Contemporary theories of globalization have moved beyond assumptions of an inevitable “homogenization” of a global society wherein western hegemonic cultural practices infiltrate non-western settings (Benyon & Dunkerley, 2014) and instead investigate the ways in which the local and global are mutually constitutive of a lived experience that is socio-culturally and historically rooted (Pigg, 2005). I focus in this dissertation on one aspect of an increasingly globalized world: the movement of people. In particular, this dissertation explores the temporary movement of people across local and national borders for the purposes of work (UNDP, 2010).

This section first describes the labor migration phenomenon in Nepal, where in 2011 more than half of households had a member who had migrated – for men, most commonly for work – within the past 10 years (MOHP et al., 2012). Then, an outline is provided of the transnational theoretical orientation this dissertation takes towards the study of labor migration and intimacy. The section then explores literature on the relationship between labor migration and sexual and reproductive health. Finally, an investigation of the effect of spousal labor migration on the household with a focus on the intimate relationships between women “left behind” and their migrating spouses highlights gaps in knowledge and promising opportunities for future research.

### *Labor migration in Nepal: An illustrative case*

With increased feasibility of travel and reduced financial barriers to movement, the travel of Nepalis within Nepal and internationally both temporarily and permanently has increased significantly in recent years (GON, 2014). More than 2 million Nepalis were working internationally for work in 2014 (CBS, 2011; IOM, 2015). The NDHS-11 found that nearly one third of women were living separately from their spouses, most frequently due to labor migration (Khanal et al., 2013). Such labor migration – particularly among men<sup>6</sup> – has existed in Nepal for centuries (Thieme & Wyss, 2005). In addition to traditions of migration among nomadic groups throughout Nepal and travel along trade routes through Nepal and to areas of China and India, rural-to-urban internal migration and migration from hill areas to the *terai*, or plains region, have also shifted population distributions in the country (Gurung, 2001; Poertner et al., 2011; Regmi, 2001; Sunam, 2014; Thieme & Wyss, 2005; Toffin, 1978; Tulachan, 2001). The recruitment of Nepali men from hill regions for the British Gurkha army was a major source of international out-migration among men in the 19<sup>th</sup> century and this practice continues to take place today (Low, 2016; Thieme & Wyss, 2005; Toffin, 1978). Following the 1950 treaty that opened the India-Nepal border, Nepalis traveling to India for work no longer required visas or paperwork, which continues to facilitate travel to India for seasonal employment (Seddon et al., 2002; Thieme & Wyss, 2005). However,

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<sup>6</sup> Less than 5% of migrants seeking permits for international work in 2013–2014 were women, and it is estimated that only 10% of all international labor migrants from Nepal are women (Ghimire, 2011). Women's limited engagement in migration in Nepal may be the product of the reduced access to financial resources and opportunities that are necessary to arrange such travel plans (Adhikari, 2006). In addition, many also attribute the restricted number of women migrating for work internationally to gendered policies in Nepal that restricted women's migration under the guise of protection (Adhikari, 2006). In light of the limited number of women migrating for work in Nepal, this study focuses instead on the effect of men's labor migration on their non-mobile wives.



the open border has hindered calculations of migration rates (GON, 2014; ILO, n.d.; Sijapati & Limbu, 2012).

Today, men traveling internationally go primarily to countries in the Persian Gulf, Malaysia, and India for employment opportunities (GON, 2014). These men are often young (MOHP et al., 2012; Regmi, 2009) and work in agriculture, factories, or service positions (GON, 2014; Gurung, 2004; Joshi et al., 2011; Martin, 2016; Seddon et al., 2002; Sijapati & Limbu, 2012). Labor migrants from Nepal and other countries are at high risk for exploitation and occupational health risks in their places of destination (GON, 2014; Joshi et al., 2011). The deaths of Nepali men working in Qatar in the construction for the 2020 World Cup is just one example of the work-related risks migrants face when traveling for work (Pattisson, 2013, September 25.).<sup>7</sup>

The economy of Nepal is greatly dependent on labor migrants, and in 2014 Nepal ranked third among countries around the world in remittances received as a percentage of the country's total gross domestic product (GDP) (Ghimire, 2011; ILO, n.d.; Ratha et al., 2016). Remittances were equal to 29% of the GDP in 2014 (Ratha et al., 2016). In light of such dependence on remittances, policies and agreements between Nepal and other countries affect who migrates and where they travel. For example, the Nepali Government has established relationships with several countries in the Persian Gulf as well as South Korea to facilitate labor migration (GON, 2014; Sijapati & Limbu, 2012). Such migration often requires educational attainment and financial means and capital to not only take exams, but also to pay manpower or recruitment agencies (Martin, 2016; Seddon et al., 2002).

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<sup>7</sup> While this topic and the potential health risks of Nepali men migrating for work is garnering increased attention in scholarly work and remains an important concern, this topic is beyond the scope of this dissertation.

Many Nepali migrants travel to improve their economic well-being, and poverty remains an important push factor (Poertner et al., 2011; Sherpa, 2010; Valentin, 2012). Individuals working in small rural communities often leave for greater economic opportunities in more industrialized areas (Asia Foundation et al., 2013; Sherpa, 2010). In addition, the ten-year civil war greatly damaged the economy of Nepal, leading to greater pressure on its citizens to travel abroad for work (Asia Foundation et al., 2013; Sherpa, 2010). Agriculture represents the largest form of employment in Nepal, and challenges to subsistence living have also led men to travel seasonally for work, returning home for key points during the agricultural season like planting and harvesting (Sherpa, 2010). Finally, in the aftermath of the recent earthquake in Nepal, labor migration is likely to increase as negative impacts of environmental damage on local economies push individuals to migrate for work (Drabo & Mbaye, 2011).

Importantly, the economic factors that together lead many to migrate for work are experienced differently by people from different social locations, with factors like gender, education, or caste/ethnicity affecting not only individuals' economic opportunities but also their access to social and cultural capital that affect the options available to them both within and outside of Nepal (Poertner et al., 2011; Valentin, 2012). Study of migration in both the far-western and central region have shown how migration trajectories, including engagement in internal or international migration, were influenced by individuals' social ties and the migration experiences of those in respondents' networks and families (Bohra & Massey, 2009; Poertner et al., 2011). While national policies and global bilateral agreements are vital to a complete understanding of migration patterns in Nepal, social network and social capital are also fundamental

factors that affect if and where people decide to travel for work (Bohra & Massey, 2009; Massey et al., 1993; Poertner et al., 2011; Thieme & Müller-Böker, 2010).

### *Theoretical orientation to research on labor migration*

“Sending and receiving countries” and the couples and families that span them are linked by migration, constructing transnational lives for both migrants and their families “left behind” (Hirsch, 2003, p. 13). Rather than relying on previous micro- and macro-level economic theories of migration that focused on rational decision-making at the individual level or national-level wage or workforce differentials that affected people’s migration patterns (Kearney, 1986; Massey et al., 1993), recent theories of migration have focused on the transnational experience of migration (Amelina & Faist, 2012; Gardner & Osella, 2004; Glick-Schiller et al., 1992; Hannaford, 2015; Levitt & Schiller, 2004; Nedelcu, 2012). As a result, studies of the ways in which migration is implicated in the daily lives of women “left behind,” are essential (Cohen, 2001; Hannaford, 2015; Hirsch, 2003; Pauli, 2008; Smith-Estelle & Gruskin, 2003; Sunam, 2014; Toyota et al., 2007). However, anthropologists have critiqued these studies for portraying women as passively left behind (Hannaford, 2015; Pauli, 2008) and therefore ignoring their roles as agents (De Haas & Fokkema, 2010). Importantly, a transnational lens acknowledges not only the migrant as an actor, but also the role of his/her partner, family, social groups, or community in the maintenance of connections across space and time (Amelina & Faist, 2012; Levitt & Schiller, 2004; Nedelcu, 2012). This theoretical orientation is particularly useful for the study of labor migration in Nepal, since such migration is often temporary rather than permanent.

In Levitt & Schiller (2004)'s foundational work "conceptualizing simultaneity" (p. 1002), the authors describe how individuals' social fields are the product of transnational connections that span both space and time. Their conceptualization of transnational social fields is rooted in Pierre Bourdieu's understanding of social fields as the manifestation of intersecting social relationships and interactions that are the product of inequitable power relations (Levitt & Schiller, 2004; Nedelcu, 2012). Levitt & Schiller (2004) distinguish between two aspects of people's social fields: "ways of being," which refer to individuals' social interactions, intimate relationships, and daily practices, and "ways of belonging," or the ways in which such practices then relate to individuals' identities (Legido-Quigley & McKee, 2012; Levitt & Schiller, 2004, p. 1010).

Transnational social fields remove assumptions of "methodological nationalism" (Amelina & Faist, 2012; Levitt & Schiller, 2004; Nedelcu, 2012) and instead highlight the ways in which social relationships are constructed across time and space and lead to the exchange of multiple "scapes" (Appadurai, 1996; Levitt & Schiller, 2004; Pessar & Mahler, 2003). Integral to this theoretical perspective is the rejection of an often-established dichotomy between assimilation and transnationalism, instead highlighting how individuals' place of origin and destination are both constitutive of migrants' and their families' social fields. The transnational social fields perspective<sup>8</sup> therefore facilitates a focus on the ways in which migration is experienced by migrants themselves

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<sup>8</sup> As a result of the substantial history and prevalence of internal as well as international migration for work (UNDP, 2010; Zimmerman et al., 2011), the term "transregional," rather than "transnational," may be more appropriate for discussions of the social fields of women "left behind." In using the term "transnational," this dissertation aims to situate its findings within the larger body of theoretical and empirical research on migration that draws on the term "transnational." As a result, any use of the term transnational social fields in this dissertation acknowledges the important role of both transregional as well as transnational mobility in the social fields of women "left behind."

as well as those “left behind” (Glick-Schiller et al., 1992; Hannaford, 2015; Levitt & Schiller, 2004).

### **Theoretical orientation to the study of migration and intimacy**

The household or home has been an important site of theorizing on migration (Boccagni, 2017; De Haas & Fokkema, 2010; Ilcan, 1994; Kearney, 1986; Massey et al., 1993; Safri & Graham, 2010). While early theories of migration, such as the “new economics” of labor migration, were novel in their emphasis on the household-related factors that affected individuals’ migration decisions and trajectories (De Haas & Fokkema, 2010; Massey et al., 1993), anthropological and sociological researchers continue to examine how meanings of home – including the intimate relationships that are intrinsic to understandings of and dynamics within the home – are reconstructed as migrants leave places of origin and perhaps become separated from their families (Boccagni, 2017; Fresnoza-Flot, 2009; Madianou & Miller, 2011; Nedelcu & Wyss, 2016; Parrenas, 2005; Parrenas, 2014; Platt et al., 2016). These intimate relationships and interactions – such as those between a woman “left behind” and her migrant spouse – are fundamental to and affected by women’s ways of being in transnational social fields. As a result, the study of such intimate relationships has acknowledged the ways in which intimacy or love must be understood within larger political and socio-economic structures that are rooted in globalization and affect individuals’ migration (Padilla et al., 2007). Proposed by Padilla et al. in their edited volume exploring the intersections of intimacy, globalization, and mobility, the “political economy of love” is an approach that:

*“...would seek to trace large-scale shifts in political economy to the lived experiences and practices of love and intimacy, while continually listening to the voices of people themselves, their subjective understandings of intimate relationships and interactions, and their struggles to establish and maintain intimacy within the shifting terrain of globalizing processes” (Padilla et al., 2007, p. xii).*

In contrast to traditional applications of political economy that often fail to acknowledge people’s lived experiences, this theoretical approach aims to understand how global political and economic structures that affect social inequalities are intrinsically linked with individuals’ intimate relationships through a focus on their daily lives and subjective experiences. By applying political economies to intimacy and intimate relationships, Padilla et al. (2007) aimed to extend the political economy perspective to discussions of people’s daily lives, rather than remain limited to macro- or societal level discussions, and simultaneously emphasized how intimacy and intimate relationships are constitutive of and influence larger political and economic structures (Lohan, 2015; Meszaros & Bazzaroni, 2014; Padilla et al., 2007; Patico, 2010). At the same time, this approach rejects a deterministic view of globalization and such globalized structures as solely homogenizing forces by acknowledging how globalization is experienced differently on the ground (Benyon & Dunkerley, 2014; Padilla et al., 2007; Wilson, 2004).

Wilson (2004)’s coined term “intimate economies” is similarly focused on the ways in which intimate relationships, including sexual relations as well as interactions between intimate partners or other family members, are reconstructed in local settings as individuals encounter global political and economic forces in local spaces and times (Wilson, 2004). Through a focus on sex work, department stores, and Avon ladies in Bangkok, Wilson (2004) followed encounters with global capitalistic practices and individuals’ re-conceptualizations of sexual relations, gender identities, and kin relations.

Wilson (2004) highlighted the important interrelations between global economic relations of inequality and individuals' interactions and aspects of their reproductive lives at the local level. It is the application of Wilson (2004)'s concept of intimate economies to the reproductive dilemmas of women migrating for work from the Philippines (Collantes, 2016) that reinforced the connection between the global political and economic context that affects transnational movement for work and women's intimate relationships by focusing on both women's relationships with their partners and their family planning practices. By highlighting narratives of women and couples whose decisions to delay marriage and pregnancy or to use contraception were affected by economic factors relating to their own or a family member's migration for work, Collantes (2016) illustrated how global economic patterns that lead women to migrate may both reinforce and challenge household gender dynamics and roles and lead couples and families to re-conceptualize family planning and reproductive decisions.

In this dissertation, I build off of these theoretical approaches to the study of migration by exploring the intersections of labor migration and intimacy in Nepal. Intimacy is understood as both physical and emotional and therefore refers not only to physical or sexual relations between partners, but also to the development of closeness through interpersonal relationships and interactions (Walsh, 2009). This dissertation therefore explores two important aspects of transnational spousal relationships: 1) women's reproductive lives and practices and 2) intimate interactions between women "left behind" and their migrating spouses. By drawing on the work of Padilla et al. (2007), Wilson (2004), and Collantes (2016) among others (Hannaford 2015), this dissertation posits that Nepali women's ways of being and belonging in transnational

social fields both affect and are affected by women's reproductive lives and intimate relationships with their migrating spouses. This project aims to push this literature forward by investigating the intersections of labor migration and women's reproductive lives and intimate relationships through both a theoretical and public health lens in Nepal, an under-investigated setting with a rich history of *male* labor migration.

In the next section, public health perspectives on the relationship between migration and sexual and reproductive health are described. In addition, the following section also expounds upon the effects of migration on household dynamics, including a focus on the transformations in household gender dynamics that affect intimate interactions between partners and have important implications for women's reproductive lives.

### ***Labor migration and sexual and reproductive health***

In light of the transnational connections that link labor migrants with both their places of origin and destination (Glick-Schiller et al., 1992; Levitt & Schiller, 2004; Nedelcu, 2012), researchers and policymakers have acknowledged the need to understand the sexual and reproductive health and risk behaviors of these mobile populations (Calderon, 2012; Haour-Knipe et al., 2014). Most research has focused on migrants' sexual risk and HIV vulnerability (Bam et al., 2013; Deb et al., 2009; Hirsch, 2014; Islam & Conigrave, 2008; Mercer et al., 2007; Rodríguez et al., 2010; Roy et al., 2013; Saggurti et al., 2009; Verma et al., 2010; Weine & Kashuba, 2012; Zhang et al., 2016). In HIV research, migrants have frequently been portrayed as a "bridging population" as a result of their mobility (Islam & Conigrave, 2008; Roy et al., 2010; Roy et al., 2013). In a



recent systematic review of HIV risk among labor migrants, studies of work-related mobility between Mexico and the United States, in Sub-Saharan Africa and South Asia, and elsewhere showed evidence of labor migrants' low perceived susceptibility to HIV, limited knowledge of HIV prevention and transmission, and frequent engagement in risk behaviors like substance use, unprotected sex, and transactional sex with female sex workers (FSWs) (Weine & Kashuba, 2012).<sup>9</sup> For men migrating for work and often separated from their spouses, masculine norms and identities intersect with their mobility or aspects of their employment (e.g. loneliness, fear, or danger) to increase their engagement in sexual risk behaviors and HIV vulnerability (Campbell, 1997; El-Bassel et al., 2015; Hirsch et al., 2009; Hunter, 2005; Seeley & Allison, 2005; Van Tuan, 2010).

Within this large body of research, less attention has been paid to the sexual and reproductive health of labor migrants' partners (Halli et al., 2007; Mercer et al., 2007; Smith-Estelle & Gruskin, 2003). In studies that do discuss migrant men's partners – including spouses, FSWs, and other partners – risk is often examined from the perspective of the male migrant rather than his sexual partners (Bailey & Hutter, 2006; Bam et al., 2013; Verma et al., 2010). However, a study of labor migrants' regular sex partners in their destinations did show how perceptions of intimacy may lead to inconsistent condom use (Zabrocki et al., 2015). For labor migrants' spouses "left behind," researchers have posited that a partner's labor migration experience may increase women's risk for HIV and other sexually transmitted infections (STIs), due to a spouse's engagement in sexual risk behaviors, and may be associated with women's reduced treatment-seeking (Bassett & Mhloyi, 1991; Golobof et al., 2011; Remien et al.,

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<sup>9</sup> Across these studies, type of labor migration and definitions of mobility vary by migration characteristics such as destination, type of work, duration, and frequency (Weine & Kashuba, 2012).

2009; Sevoyan & Agadjanian, 2015). Women in Mozambique whose husbands were more economically successful were found to have greater concerns over their partners' extramarital relations and HIV transmission than women whose husbands sent fewer remittances or who were not migrants (Agadjanian, Arnaldo, et al., 2011). In Tajikistan and North Africa, the risks for labor migrants' wives were linked with inequitable gender dynamics that affected condom negotiation or led women to be dependent on their spouses economically (Golobof et al., 2011; Remien et al., 2009). In contrast, a study in Armenia found no significant association between having a labor migrant partner and consistent condom use (Agadjanian & Markosyan, 2016). A recent study in Nepal also found no significant association between partner's labor migration experience and women's HPV status (Johnson et al., 2016). Importantly, this body of literature has been critiqued methodologically for its focus on the migrant and for ignoring the sexual and reproductive practices of those left behind (Lurie, 2006). Lurie (2006) showed that women left behind were also involved in sexual risk behaviors that affected the HIV epidemic in South Africa. Researchers have hypothesized that male labor migration may lead women "left behind" to engage in transactional sex (Remien et al., 2009) or have multiple concurrent partners in search of material or social support or to maintain livelihoods (Lurie, 2006).

Despite the large body of research exploring the sexual and reproductive health of labor migrants, there remains a dearth of research that 1) assesses the effects of such labor migration on the health of spouses "left behind," and 2) highlights the agency of women "left behind" by focusing on *their* sexual and reproductive health practices rather than those of their migrating spouses (Lurie, 2006). At the same time, there is a need for

additional research that examines the reproductive health practices related to fertility and family planning rather than sexual risk. Below, a more in-depth investigation of the limited literature on the relationship between migration and fertility and family planning is provided.

### **Migration, fertility, and family planning**

Most common to studies on migration and family planning behaviors is a focus on the fertility of permanent migrants (Clifford, 2009; Sobotka, 2008; Yang, 2000). Social scientists and demographers have investigated the relationship between migration and fertility in multiple settings, including Latin America, Europe, sub-Saharan Africa, and Asia (Agadjanian, Yabiku, et al., 2011; Kulu & Milewski, 2007; Lindstrom & Giorguli-Saucedo, 2002, 2007; Lubke, 2015; Sevoyan & Agadjanian, 2013; Yang, 2000). Limited research has explored the effects of temporary migration on fertility preferences and behaviors (Agadjanian, Yabiku, et al., 2011; Clifford, 2009; Sevoyan, 2011).

Among several theories developed to model and understand the relationship between migration and fertility, the disruption hypothesis, which states that the migration process acts as a disrupting force that may reduce fertility rates in the short term (Sobotka, 2008), has been cited as one of the most relevant to families wherein one partner is “left behind” while the other migrates (Lindstrom & Giorguli-Saucedo, 2007). Research among migrants from Mexico to the United States, for example, has indicated that this effect may not be long-term, with such disruption simply delaying fertility behaviors until the family or couple is reunited (Lindstrom & Giorguli-Saucedo, 2002, 2007). As a result, the interrelation hypothesis, which identifies the link between family

formation and migration that can lead to increased fertility following migration events as individuals attempt to account for the disruptive effects of separation, has been supported in research on the fertility of 1) Mexican immigrants to the United States, 2) Polish immigrants in Britain, and 3) other migrant populations in Europe (Kulu & Milewski, 2007; Lubke, 2015).

Findings from studies on the relationship between temporary migration and fertility are varied. Studies in Mexico, Mozambique, Tajikistan, Papua New Guinea, and Burkina Faso demonstrated reduced fertility, at least in the short term, among temporary migrants (Agadjanian, Yabiku, et al., 2011; Clifford, 2009; Connell, 1984; Hampshire & Randall, 2000), but others in Egypt and China showed opposite trends (Bertoli & Marchetta, 2015; Yang, 2000; Zhao et al., 2011), and a study in Armenia found no significant association (Sevoyan, 2011). Modest evidence from Mozambique and Armenia has suggested that men's and women's desires for more children are significantly greater when a male partner has labor migration experience (Agadjanian, Yabiku, et al., 2011; Sevoyan, 2011). In contrast, an early study in St. Vincent highlighted how labor migration of a spouse shifted women's attitudes about the economic costs and burdens of having children (Gearing, 1992). These wide-ranging findings reflect the urgent need for further exploration of the reproductive lives of temporary migrants and their partners (Agadjanian, Yabiku, et al., 2011; Sevoyan, 2011).

In Nepal, recent findings from the NDHS-11 and other national-level surveys have highlighted the potential links between fertility or current contraceptive use and spousal labor migration (Ban et al., 2012; Khanal et al., 2013; Shrestha et al., 2012). The

total fertility rate (TFR)<sup>10</sup> for women living away from their partners for less than one year was 3.3, compared to a TFR of 2.6 for women whose partners had been away for at least one year and a TFR of 3.6 for women cohabitating with their partners. Evidence has shown that the CPR (any method) was 25% among women whose husbands were away for less than one year (and only 20% among women whose husbands were away for more than one year) as compared to 62% among married women cohabitating with their partner (Khanal et al., 2013).<sup>11</sup> Such low contraceptive use has been attributed to discontinuation following migration (CREHPA, 2012). Researchers have therefore proposed men's labor migration as one of multiple potential pathways leading to the stagnation<sup>12</sup> of CPR at the national level in Nepal (Ban et al., 2012; Shrestha et al., 2012).

Despite the unique family planning needs of women and their labor migrant partners during periods of separation and cohabitation, few studies have explored the particular barriers to and facilitators of contraceptive use in this population in Nepal (Ban et al., 2012; CREHPA, 2012). As evidenced in their recent FP2020 Costed Implementation Plan, the Government of Nepal has begun to acknowledge the unique needs of labor migrants and their spouses and called for activities to address these needs (MOHP, 2015). However, public health programs frequently focus on labor migrants' sexual risk practices and the HIV vulnerability of their spouses, rather than their family planning needs (Uprety et al., 2016). The Health Communication Capacity Collaborative (HC3) Project remains a leader in its efforts to acknowledge the effect of spousal labor

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<sup>10</sup> Total fertility rate (TFR) is the expected children a woman would have if she were subject to each of the current age-specific fertility rates throughout her childbearing years (PRH, n.d.).

<sup>11</sup> Unmarried rural-to-urban labor migrants in Nepal also reported low contraceptive use (Puri & Busza, 2004).

<sup>12</sup> As a result, it may be misleading to describe shifts in CPR as "stagnating" in Nepal, since this term implies that something should be done to address the "stagnation" in CPR.

migration on family planning practices in their activities and intervention components (HC3, 2014).

### *Migration and household dynamics*

Migration is often constructed as a catalyst for change in households and local communities (Lokshin et al., 2010; Maharjan et al., 2013). Substantial attention has been paid to the economic effects of labor migration, with economic investigations showing the positive effects of remittances (both monetary and social) on household wealth and livelihoods (Lokshin et al., 2010). One study of remittances in 59 countries showed that greater remittances were associated with reduced fertility in Latin American and African regions, while this trend was less consistent in countries in Asia (Naufal, 2009). Other studies have acknowledged the ways in which remittances may not necessarily transform the economic status or livelihoods of families and communities back home (Seddon et al., 2002), as families become increasingly dependent on remittances (Rahman, 2009). Such dependence increases families' vulnerability to fluctuations in remittances (Luke, 2010). In rural areas, for example, agricultural yields often suffer despite increased incomes, due to the lack of available labor (Adhikari & Hobley, 2015; Maharjan et al., 2013; Tuladhar, 2014). As a result, the immediate and long-term effects of labor migration and remittances on households, families, and communities "left behind" remain an important area of investigation for researchers and policy-makers (Maharjan et al., 2013; Rahman, 2009).

At the same time, labor migration fundamentally restructures how migrants and their families understand "home" (Boccagni, 2017) and has tangible effects on their

experiences within the household (Chant, 1997; De Haas & Fokkema, 2010; Kaspar, 2006). Multiple “household forms” or structures emerge as partners and family members reorient the structure and function of households “left behind” (Chant, 1997; Kaspar, 2006). In particular, this section examines the double-edged sword of migration for women “left behind” through an examination of the relationship between labor migration and household gender dynamics, including 1) women’s roles and responsibilities, 2) women’s autonomy, and 3) partner communication. Implications of such gender dynamics for women’s reproductive lives are discussed.

### **Labor migration and household gender dynamics: Implications for women’s reproductive lives**

The effects of labor migration on gender dynamics “back home”<sup>13</sup> have been explored in a variety of socio-cultural settings including in Mexico and the United States (Hirsch, 2003; Hondagneu-Sotelo, 1992), the United Kingdom (Kang, 2012), multiple sites in sub-Saharan Africa (Hannaford, 2015; Lobnibe, 2008; Yabiku et al., 2010), and South Asia (Adhikari & Hobley, 2015; Gartaula, 2013b; Gartaula et al., 2012; Giri & Darnhofer, 2010; Maharjan et al., 2012; Rashid, 2013; Sultana, 2014; Thieme & Müller-Böker, 2010). Across these studies, effects of labor migration on household gender dynamics (e.g. women’s roles and responsibilities, women’s autonomy, and partner communication) have been found to be mixed (Dannecker, 2005; Hannaford, 2015; Pauli, 2008; Yabiku et al., 2010).

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<sup>13</sup> Researchers have posited that a bidirectional relationship exists between migration and gender dynamics (Carling, 2005; Chapagain, 2015). On one hand, decisions about migration and who migrates are often influenced by gender inequities within the household and at the societal level. On the other hand, gender norms from migrants’ place of origin may be confronted by exposure to new norms and attitudes and by the very act of migration itself (Maternowska et al., 2010).

While some studies show reduced participation of women in the labor market with a spouse's labor migration (Khaled, 1995), including a study performed in Nepal (Lokshin & Glinskaya, 2009), others have highlighted women's increased participation in the agriculture-related labor force (Gartaula et al., 2012; Hugo, 1995; Ilcan, 1994; McGuire & Martin, 2007; Thieme & Müller-Böker, 2010). Other evidence has suggested that following migration, women's participation in economic activities may shift economic power relations traditionally dominated by men (Abdul-Korah, 2011). Beyond formal market participation, the absence of a spouse often leads women "left behind" to acquire new roles and greater responsibilities in the household (Bassett & Mhloyi, 1991; Khaled, 1995). Studies in Nepal support findings from other settings that this expansion in responsibilities may be associated with an increased sense of burden, stress, or poor health and well-being (Chapagain, 2015; Connell, 1984; Gartaula et al., 2012; Hugo, 1995; McGuire & Martin, 2007; Smith-Estelle & Gruskin, 2003).<sup>14</sup> For many women "left behind," spousal absence also leads to the expansion of domestic and "reproductive work"<sup>15</sup> (Chodorow, 1999; Martin, 2001; Pearson, 2000; Smith, 2013), wherein caregiving and nurturing roles are reinforced as women's responsibilities (Gailey, 1992; McGuire & Martin, 2007). Studies have also acknowledged how *female* labor migration in particular includes both benefits and challenges for women, whose roles expand in the labor market and at the same time include responsibilities for "reproductive work" like reproduction, childbearing, childrearing, caregiving, and other domestic roles (Fresnoza-

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<sup>14</sup> The wives of migrants may also experience gender-based violence from partners and other family members (Chapagain, 2015; Gartaula et al., 2012).

<sup>15</sup> Here, reproductive work is used to refer to work often separated from productive, formal labor market participation or wage-earning work (Chodorow, 1999; Martin, 2001; Pearson, 2000; Smith, 2013). In particular, reproductive work is used to refer to responsibilities and roles traditionally allocated to women and includes reproduction and childbearing as well as childrearing, nurturing, and other domestic roles.



Flot, 2009; Hancock, 2007; Madianou & Miller, 2011; Parrenas, 2005; Parrenas, 2014; Platt et al., 2016). With migration, gender roles and expectations shift (Chereni, 2015; Hoang & Yeoh, 2011; Parrenas, 2005; Parrenas, 2014; Sørensen & Vammen, 2014), which also influences women's perspectives on having children or family planning use (Collantes, 2016).

Male migration can also result in women's increased participation in household decision-making, particularly in smaller or functional decisions, as women take on more responsibility in the absence of their spouses and gain a sense of "autonomy" in their daily lives (Adhikari & Hobley, 2015; Chapagain, 2015; Kaspar, 2006; Khaled, 1995; Pauli, 2008; Rashid, 2013; Yabiku et al., 2010). Evidence from Nepal has suggested that women acting as "de-facto heads of household" had greater autonomy and control over their daily lives than did women living with in-laws (Gartaula, 2013b; Kaspar, 2006; Giri & Darnhofer, 2010). These changes may be fleeting and may disappear when men return home (Giri & Darnhofer, 2010; Kaspar, 2006), but have also been shown in Mozambique to have lasting effects (Yabiku et al., 2010). At the same time, some women "left behind" in patrilocal contexts like Nepal may become increasingly dependent on the migrant spouse's family and may not experience changes in decision-making power (Thieme & Müller-Böker, 2010). Heightened surveillance and control over women's bodies and actions – by women themselves, their partners, and within the larger community – can also lead to greater restrictions for women while their partners are away (Dannecker, 2005; Hannaford, 2015; Ilcan, 1994; Ochoa-Marín et al., 2011). Often these restrictions are linked with suspicions of infidelity and affect both the reproductive or sexual practices and healthcare seeking of women separated from their spouses (Hannaford,

2015; Ochoa-Marín et al., 2011).

At the same time that spousal labor migration fundamentally restructures the composition of the household, gendered roles and responsibilities, and women's autonomy during periods of separation, it also has implications for intimate relationships by affecting how women and their partners interact and communicate (Hannaford, 2015). Migration shifts communication patterns and reframes understandings of men and women's roles in the household during separation (Bacigalupe & Lambe, 2011; Coe, 2011; Ghannam, 1998; Hannaford, 2015; Hughes et al., 2006; Kang, 2012). Communication technologies are essential for maintaining contact between partners across borders, with couples communicating about money, children, and family issues (Adhikari & Hogley, 2015; Gartaula et al., 2012).

Despite the possibility and increased feasibility of such cross-border communication, further research is needed to understand how communication about sexual or reproductive health topics is affected by spousal labor migration. Some studies have emphasized how women's increased power in relationships is linked with partner communication about sex *among* migrants (Matsuda et al., 2014) and that the unique vulnerabilities of labor migrants intersect with inequitable power relationships and lack of communication to increase the sexual risk and affect the family planning practices of migrants and their partners (Delbiso, 2013; Espinoza et al., 2014). In contrast, a scarcity of literature has examined partner communication on such topics between women "left behind" and their migrating spouses (Agadjanian & Markosyan, 2016; CREHPA, 2012; Hughes et al., 2006; Sevoyan & Agadjanian, 2015). A frequently cited study of women "left behind" by partners in South Africa found that women experiencing longer periods

of separation reported significantly reduced odds of communicating with their partners about sex as compared to women who saw their partners more frequently (Hughes et al., 2006). A study in Tajikistan described how limited communication between women and their migrant spouses compounded existing gender dynamics that led to limited discussion of sexual health topics (Golobof et al., 2011). More recent studies on labor migrants and their non-mobile spouses in Central Asia have shown opposite associations, concluding that labor migrants' wives reported communicating more with their spouses about sexual risk or HIV as compared to women with non-migrant spouses (Agadjanian & Markosyan, 2016; Sevoyan & Agadjanian, 2015).

In light of the diversity of associations and mechanisms linking labor migration with household gender dynamics, Hirsch and others have challenged researchers to move beyond essentialist understandings of migration as emancipatory for women (Gartaula et al., 2012; Hirsch, 2007; Padilla et al., 2007). If a partner's labor migration leads to women's increased power in decision-making, but they are overwhelmed by their new responsibilities or under greater surveillance, does this necessarily mean they are empowered (Rashid, 2013)? Together, this section intrinsically linked the effects of labor migration on household gender dynamics and women's reproductive lives, showing modest evidence of not only the reinforcement of their responsibility over reproductive work, but the surveillance of and control over their reproductive practices and effects on partner communication about sexual and reproductive health topics. However, these findings are drawn from a small body of literature complicated by methodological generalizability, variations in type of labor migration, and socio-cultural differences. In addition, many studies outside the public health discipline discussed only tangentially the

reproductive implications of spousal labor migration on women “left behind.” It is imperative therefore that researchers further investigate the ways in which household gender dynamics are shifted and understood, particularly in Nepal where only a handful of studies have been performed (Chapagain, 2015; Maharjan et al., 2012; Thieme & Müller-Böker, 2010).

### *Summary and research gaps*

In an increasingly global world, migration within and across borders constitutes an increasingly large number of individuals’ and families’ lived experiences. This section outlined the utility of Levitt & Glick-Schiller (2004)’s concept of transnational social fields as a theoretical orientation towards the study of labor migration and the experiences of women “left behind” (Amelina & Faist, 2012; Levitt & Schiller, 2004; Nedelcu, 2012). Through an exploration of the intersections of research on migration and intimacy – including a focus on both sexual and reproductive health and the intersections of shifting household gender dynamics and women’s reproductive lives – this section then emphasized the ways in which labor migration is related not only to the lived experiences of the migrant him/herself, but also that of those “left behind.” However, several gaps in knowledge remain and were identified in this section. First, despite the large body of research on migration, most attention has been paid to the experiences of migrants rather than those “left behind.” At the same time, there has been limited focus on the family planning practices (rather than sexual health and HIV-related risks) of labor migrants and their spouses. Finally, while studies have looked at the effects of labor migration on household gender dynamics, they have only modestly explored how these

shifts are related to women's reproductive lives. In Nepal, little attention has been paid to the effects of spousal labor migration on aspects of intimate relationships like partner communication, particularly partner communication about sexual and reproductive topics (CREHPA, 2012; Gartaula, 2013a; Gartaula et al., 2012).

### **Part III. Research aims and contributions**

To address the major gaps in knowledge identified in the first two sections of this chapter, this dissertation focuses on the intersections of labor migration, women's reproductive lives, and intimate relationships with their migrating spouses in Nepal. This research project explores critically, through the use of qualitative and quantitative research methods, how Nepali women's social locations – including spousal labor migration experience – are implicated in women's perspectives on their reproductive lives and practices (aim 1 and aim 3) and their intimate relationships and interactions with their partners (aim 2 and aim 3). Qualitative research is used to complement quantitative measures of gender dynamics (Malhotra et al., 2002; Schatz, 2011) to examine the lived experience (Green & Thorogood, 2013) of gendered expectations and roles in the family, household, and society and the effects of other social locations, such as labor migration experience, on women's daily lives in Nepal.

These research aims are designed to fill gaps in knowledge on labor migration and sexual and reproductive health in Nepal and elsewhere by 1) focusing on the perspectives and experiences of women “left behind,” 2) looking at family planning practices rather than other sexual health risks or outcomes, and 3) highlighting how shifts in intimate relationships with partners – such as changes in partner communication – may have

implications for the reproductive lives of women “left behind.” The three research aims guiding this dissertation project are below:

**Aim 1:** To qualitatively explore how women’s reproductive lives are affected by their partners’ labor migration.

**Aim 2:** To qualitatively explore the nature and content of women’s interactions with their absent spouses and examine whether and how women discuss reproductive work (e.g. childrearing or family planning) with their labor migrant spouses.

**Aim 3:** To quantitatively examine the association between spousal labor migration experience and 1) women’s reproductive lives (as measured by current use of a contraceptive method) and 2) women’s intimate relationships with their labor migrant spouses (as measured by partner communication about family planning).

The health concerns of mobile populations, including the reproductive health of their partners, is a growing focus of public health research and programs in Nepal (HC3, 2014; Shrestha et al., 2012). An investigation into the lived experiences and perspectives of women whose husbands are migrating for work offers the opportunity to gain greater insight into the reproductive lives of Nepali women in an increasingly transnational world. By exploring the reproductive practices of labor migrants in Nepal, researchers can work to improve existing public health programs to make them more applicable and

relevant to the lives of nearly one-third of Nepalese women (MOHP et al., 2012). As labor migration increases both in Nepal and elsewhere around the world, it will be imperative for public health efforts to understand how to design programs that thoughtfully and accurately address the family planning needs of these individuals.

A dearth of evidence exists on the ways in which labor migration restructures and reorients intimate interactions and relationships in Nepal (CREHPA, 2012; Gartaula, 2013a; Gartaula et al., 2012). In addition to the need for researchers to expand this body of knowledge, there is an urgent need for reproductive health and development programs – which have integrated a focus on gender dynamics into their programming (Beetham & Demetriades, 2007; Jaquette & Staudt, 2006; Razavi & Miller, 1995) – to understand the nature of intimate relationships between women and their migrating partners. Partner communication has robust, positive associations with women’s reproductive health outcomes (Pratley, 2016), and a detailed exploration of such constructs in the lives of women “left behind” has the potential to inform future research and programming agendas.

In light of the low prevalence of contraceptive use and high unmet need for limiting future pregnancies among women with migrant spouses in Nepal (Ban et al., 2012; Khanal et al., 2013; Shrestha et al., 2012), current public health programs are working to address contraceptive use and its antecedents in Nepal (HC3, 2014). To date, few studies have explored in depth the extent to which household gender dynamics like partner communication are related to contraceptive use among labor migrants and their partners. This project therefore aims to investigate how separating and reuniting as a result of migration may, or may not, reinforce and shift intimate relationships between

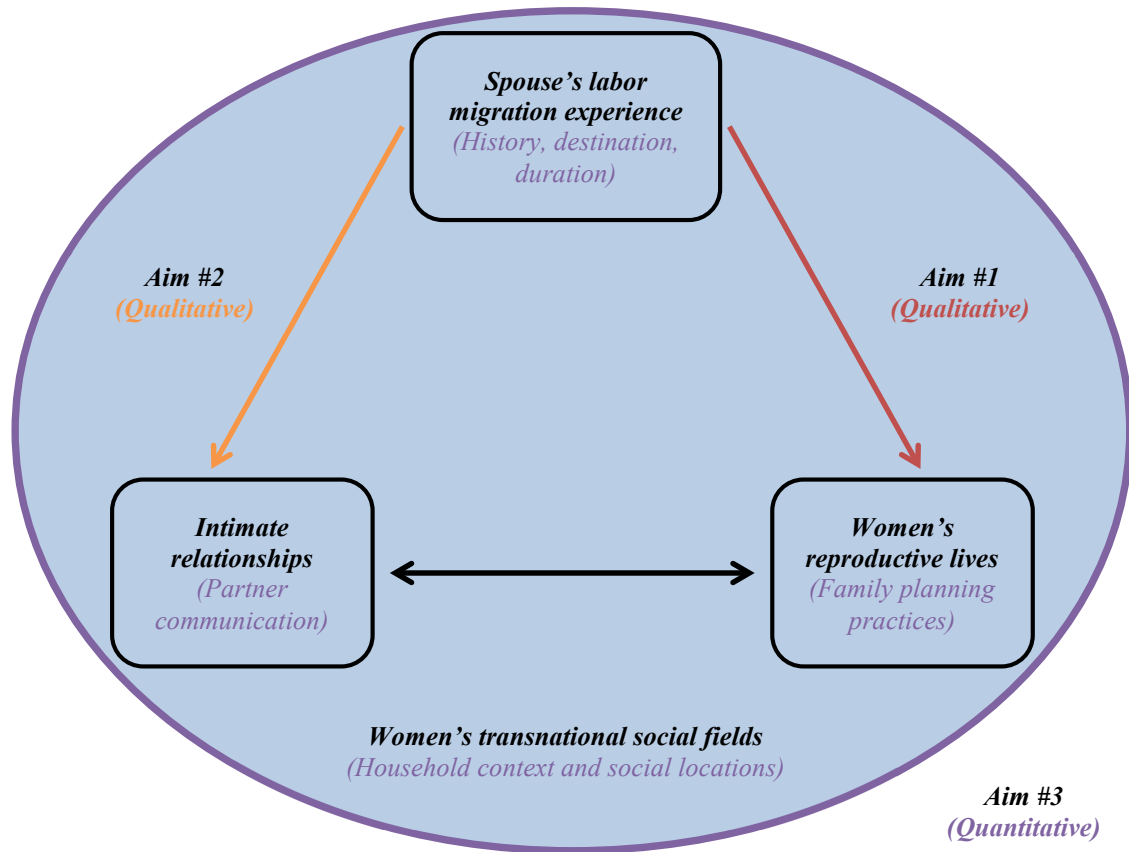
partners and may work to reconfigure family planning practices in women's lives in Nepal.

## **Part IV. Conceptual framework**

The conceptual framework depicted in Figure 2.1 guided this dissertation's specific aims, methods, and analyses. This conceptual framework draws on a transnational conceptualization of social fields (Levitt & Glick-Schiller, 2004) to emphasize how the social locations of women "left behind" by their husbands' migration are constructed and reproduced across transnational space and time through their connections with their migrating, absent spouses. Together, these transnational social fields inform the household context and social locations of women "left behind," which together have tangible effects on women's intimate relationships and reproductive lives, including their communication about family planning (Sharan & Valente, 2002; Yue et al., 2010) and family planning practices (Bennett et al., 2008; MOHP et al., 2012; Namasivayam et al., 2012).

A qualitative exploration of the relationship between spouse's labor migration experience and women's reproductive lives is the focus of aim #1 (red). In aim #2 (orange), how a spouse's migration for work affects women's intimate relationships with their labor migrant spouses, with a focus on partner communication, is also examined qualitatively. Aim 3 (purple) assesses quantitatively the associations between spousal labor migration experience and 1) women's reproductive lives, measured by women's family planning practices, and 2) women's intimate relationships with their partners, measured by partner communication about family planning.





**Figure 2.1. Conceptual framework depicting the relationships explored in this dissertation.**

Aims 1 and 2 draw on qualitative data to explore the relationship between spouse's labor migration experience and women's reproductive lives and intimate relationships with their spouses. Then, aim 3 explores these relationships quantitatively by examining how a spouse's labor migration experience is associated with women's reproductive lives, measured by their current use of a contraceptive method, and women's intimate relationships with their labor migrant spouses, measured by partner communication about family planning.

### *Spouse's labor migration experience*

Recent research has acknowledged the role of household-level factors including composition, social networks, gender dynamics, and access to opportunities and resources in decisions to migrate (Asia Foundation et al., 2013; Carling, 2005; Massey et al., 1993). Based on existing evidence from the NDHS-11 and other national-level surveys demonstrating reduced utilization of family planning services among women currently separated from their partners (Bam et al., 2013; CREHPA, 2012; Khanal et al., 2013), this conceptual framework proposes an association between labor migration experience and women's reproductive lives. In light of the existing evidence of the ways in which spousal interactions are reoriented when a spouse migrates for work (Bacigalupe & Lambe, 2011; Coe, 2011; Ghannam, 1998; Hannaford, 2015; Hughes et al., 2006; Kang, 2012), this conceptual framework also highlights a potential association between labor migration experience and women's intimate relationships. Informed by methodological recommendations from other researchers (de Brauw & Carletto, 2012; Schenker et al., 2014, p. 25), aim 3 operationalized spouse's labor migration experience by highlighting migration history (e.g. previous and current migration) as well as essential characteristics of the migration experience (e.g. destination and duration).

### *Women's reproductive lives*

The term "reproductive lives" incorporates the shifting processes through which women become pregnant or use a family planning method and is used to acknowledge the dynamic processes through which reproductive decisions and family planning practices take place in women's lives (Brunson, 2016). Other researchers have used terms like

“reproductive dilemmas” (Collantes, 2016) or “reproductive projects” (Brunson, 2016) to address such assumptions and to critique issues of assumed rationality or intentionality (Fordyce, 2012). In this dissertation, the general “reproductive lives” is used instead of these more recently proposed terms to acknowledge the limitations of public health’s assumptions about women’s reproductive health.

Women’s reproductive lives are the primary focus of aim 1 (Chapter 4), as qualitative data is used to examine the ways in which a spouse’s labor migration experience has tangible effects on different aspects of their reproductive lives: responsibility over reproduction, family planning practices, and rumors of infidelity. In aim 3 (Chapter 6), “women’s reproductive lives” is operationalized by a single measure, women’s reported current use of a contraceptive method, to examine the quantitative association between spousal labor migration experience and current use (Bam et al., 2013; Ban et al., 2012; Khanal et al., 2013).

### *Intimate relationships*

As discussed in Part II, relationships between spouses separated by migration are affected by the ways in which labor migration restructures how individuals interact with their spouses and the nature of these interactions (Adhikari & Hogley, 2015; Bacigalupe & Lambe, 2011; Coe, 2011; Gartaula, 2013a; Gartaula et al., 2012; Ghannam, 1998; Hannaford, 2015; Hughes et al., 2006; Kang, 2012). This relationship between a spouse’s labor migration experience and intimate relationships is visualized in Figure 2.1. The term “intimate relationships” is used in the specific aims of this dissertation as well as in the conceptual framework to highlight the focus taken on the effect of migration on

interactions between women and their spouses (i.e. effects on the dyad). Intimate relationships are operationalized as partner communication for the purposes of this dissertation. Partner communication, particularly communication regarding family planning, sexual health, or other reproductive topics, is a fundamental measure of household gender dynamics (Malhotra et al., 2002; Pratley, 2016) and has been shown both in Nepal and elsewhere (Chapagain, 2005; Hameed et al., 2014; Jennings & Pierotti, 2016; Link, 2011; Pratley, 2016; Yue et al., 2010) to be robustly and positively associated with increased use of contraceptive methods, greater maternal healthcare seeking, and improved maternal and child morbidity and mortality. As a result of this body of evidence, the arrow showing an association between intimate relationships and women's reproductive lives is an important component of the conceptual framework in Figure 2.1.<sup>16</sup>

Aspects of intimate relationships and household gender dynamics like partner communication are, by definition, dynamic; these processes, although often measured cross-sectionally, are not necessarily static over time and are thus processes that continuously take place and shift over time (Gipson & Hindin, 2007; Malhotra et al., 2002; Wolff et al., 2000). In fact, studies have highlighted the failure of quantitative methods to explore the process and content of communication and how such dynamics are related to contraceptive use (Link, 2011; Mosha et al., 2013). As a result, aim 2 takes a qualitative lens to such intimate relationships by focusing on how women talk about their interactions with their spouses who are migrating for work. These qualitative

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<sup>16</sup> In light of the possibility of reverse causation, wherein partner communication about family planning, for example, is the result of women's use of family planning services rather than the predictor, this arrow is double-headed due to the use of cross-sectional data and the lack of knowledge about temporal order. Longitudinal studies (e.g. Bawah et al., 2002) have, however, shown that partner communication about family planning is indeed associated with future use.

methods complement the quantitative methods used in aim 3, wherein “intimate relationships” is operationalized by measures of partner communication about family planning.

Chapter 5 draws on the language of “partner communication” as well as “intimate relationships” to position the research findings at the intersections of public health and sociological and anthropological disciplines interested in interactions between members of a couple. In contrast, Chapter 6 uses partner communication to position the findings firmly in the public health discipline and to acknowledge the ways in which the findings build on and complicate previous public health research on this topic in Nepal and elsewhere.

### *Other aspects of women’s transnational social fields*

Women’s transnational social fields are the product of interactions with others in their households and communities that challenge and orient women’s social locations (Pessar & Mahler, 2003) within the context of and in opposition to existing power relations and socio-cultural norms and practices (Amelina & Faist, 2012; Levitt & Schiller, 2004; Nedelcu, 2012). Reflecting theoretical interests in the intersection of gender relations, reproduction, and migration within the context of the household, the household level is the primary scale of interest (Connell, 1987; Malhotra et al., 2002; Nawyn, 2010; Pessar & Mahler, 2003; Toyota et al., 2007). The conceptual framework in Figure 2.1 situates the relationships of interest within a household context that is influenced by women’s transnational social fields. Evidence from Nepal has shown that aspects of the household context, such as the presence of the mother- and father-in-law as

well as family size, affect women's experiences at the household level in Nepal and influence women's reproductive lives (Jayaraman et al., 2009; Simkhada et al., 2010). Other features of the household context include household gender dynamics like gendered household roles, expectations, and responsibilities, which are important aspects of women's transnational social fields and are related not only to labor migration (Gartaula, 2013b; Kaspar, 2006; Giri & Darnhofer, 2010) but also to women's family planning use and reproductive health in Nepal (Chapagain, 2006; Furuta & Salway, 2006; Leone et al., 2003; Namasivayam et al., 2012).

Finally, for women in Nepal, important aspects of their social locations include, but are not limited to, age, wealth, education, and ethnic group (which is related to both religion and caste in Nepal). These socio-demographic factors intersect with labor migration (Gurung, 2012), household-level gender dynamics such as partner communication (Govindasamy & Malhotra, 1996; Sharan & Valente, 2002; Yue et al., 2010), and may play an important role in use of family planning services (Bennett et al., 2008; MOHP et al., 2012; Pandey et al., 2013; Raj et al., 2013; Sharma et al., 2011).

The qualitative methods used to accomplish aims 1 and 2 are informed by an emphasis on the context within which the primary constructs of interest exist and relate to women's lived experiences within the household and as they navigate their transnational social fields. As a result, the in-depth understanding of women's social locations and household context that qualitative research provides is necessary. In aim 3, quantitative measures of these components of women's transnational social fields are included as potential confounders of the associations examined and depicted in Figure 2.1.

## **Reproduction and migration in a global world: Conclusion**

This chapter situated this research project within the existing body of literature at the intersections of reproduction, intimate relationships, and labor migration. A discussion of the intrinsic link between family planning programs and gender dynamics in international development – and the existing critiques of such efforts – provided a necessary lens through which to examine and frame research on family planning in Nepal. This research project is driven by an understanding that migration is a transnational experience (Levitt & Schiller, 2004) that is implicated in the intimate lives and relationships (Collantes, 2016; Wilson, 2004) of migrants and their non-migrant spouses. Building on the gaps in evidence outlined in this chapter, this dissertation's three aims investigate the effects of labor migration on intimate relationships and women's reproductive lives in Nepal. The following chapter provides an overview of the research setting and methods used to address these research aims.

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## Chapter Three: Research setting and methods

### Overview of chapter

This chapter situates this dissertation project and research team within their larger societal, institutional, and global contexts. Following an introduction to Nepal as a research setting, this chapter outlines methodological approaches undertaken and the contexts within which the qualitative and quantitative arms of this study were conducted. The chapter then concludes with a discussion of the social positioning of the larger parent project as well as the student investigator (ZH)<sup>17</sup> and primary research assistant in Nepal.

### Research setting: Nepal

Nepal is a land-locked country in South Asia situated between India and China. Nepal has a population of nearly 29 million people (UNdata, 2017), approximately half (50.2%) of whom now live in the *terai* (plains) ecological zone (CBS, 2014). The country is divided into five development regions that span from the far west to the eastern areas of the country. There are three ecological zones: mountains, hills, and *terai*. The country of Nepal was ranked 145<sup>th</sup> among 188 countries in human development<sup>18</sup> by the United Nations Development Programme (UNDP). This ranking was influenced by the poor life expectancy, education, and standards of living that exist throughout the country (UNDP, 2015). Poverty is exacerbated by gender inequities and forms of social exclusion based on caste, ethnic, and religious differences (Bennett et al., 2006; Nightingale, 2011). The

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<sup>17</sup> In this chapter and Chapter 7, I refer to myself as either ZH or “the student investigator.” In Chapters 4, 5, and 6, I refer to myself as ZH or the first author for publication purposes.

<sup>18</sup> Calculated based on life expectancy, literacy, years of schooling, and gross national income per capita (GON & UNDP, 2014).

decade-long civil war and political uncertainty (Thapa, 2013) and the 2015 earthquake (Goda et al., 2015) have recently posed challenges to governance and infrastructure.

Hill and mountain regions in Nepal are less populated, with rural-to-urban and hill-to-*terai* internal migration shifting population distributions in the country in recent decades (Gurung, 2001; Poertner et al., 2011; Regmi, 2001; Sunam, 2014; Thieme & Wyss, 2005; Tulachan, 2001). The country has economically relied primarily on agriculture, but tourism remains an important component of the nation's GDP (Gautam, 2011). With growing rural-to-urban and international migration, agricultural production has declined in many rural areas (Adhikari & Hobley, 2015; Khanal & Watanabe, 2006; Maharjan et al., 2013; Paudel et al., 2014; Seddon et al., 2002). Remittances from labor migrants living and working abroad make significant contributions to the country's economy, with remittances equivalent to nearly thirty percent the country's GDP (Ratha et al., 2016).

It is within this setting that this dissertation research on the effects of labor migration on the transnational lives of women “left behind” is situated. The following sections provide an outline of the qualitative and quantitative methods used in this dissertation and situate these methods by providing information about the context of these two data collection approaches.

## **A multiple-method study**

This dissertation uses qualitative and quantitative methods to explore Nepali women's perspectives of their reproductive lives and intimate relationships in the context of their partners' migration experiences. Rather than perpetuating the singular focus on

the migrant, this study addresses an important gap in the literature by paying greater attention to how labor migration is implicated in the transnational lives of the migrants' partners and families (Hannaford, 2015; Pauli, 2008; Smith-Estelle & Gruskin, 2003). Rejecting traditional assumptions of partners as being passively "left behind," this dissertation addresses women's potential role as active agents in the migration experience.

Qualitative methods, specifically semi-structured interviews, were used to gather information on the *processes* and *context* (e.g. women's reproductive lives, intimate relationships with their spouses, and the household context within which these processes take place) that affect women's lived experiences. Data from qualitative interviews were used to explore the concrete effects of a spouse's labor migration on women's reproductive lives and their intimate relationships with their partners. Intimate relationships and reproductive lives are dynamic; these processes are not necessarily static and thus continuously take place and shift over time (Brunson, 2016; Gipson & Hindin, 2007; Malhotra et al., 2002; Wolff et al., 2000). Quantitative methods, often cross-sectional, may be insufficient when exploring the process and content of communication and how such dynamics lead to contraceptive use (Link, 2011; Mosha et al., 2013). Importantly, qualitative research can and should be used to complement quantitative measures to examine women's lived experiences (Green & Thorogood, 2013). In this dissertation, qualitative methods were used to develop a more in-depth understanding of the transnational social fields within which women navigate daily.

Building on the data gathered in qualitative interviews, a quantitative analysis of a large household-based survey then allowed the examination of trends in family planning

practices and intimate relationships between spouses. This quantitative analysis took a different lens to the constructs examined in aims 1 and 2 to focus on quantitative indicators of labor migration experience, reproductive lives, and intimate relationships. Drawing on a large sample of women whose partners had recent migration experience as well as women whose husbands had not recently migrated, analyses 1) examined variations in spousal labor migration experience, 2) made comparisons between women currently or recently “left behind” and women with non-migrant partners, and 3) incorporated traditional reproductive health metrics into an exploration of the transnational social fields within which women live in Nepal.

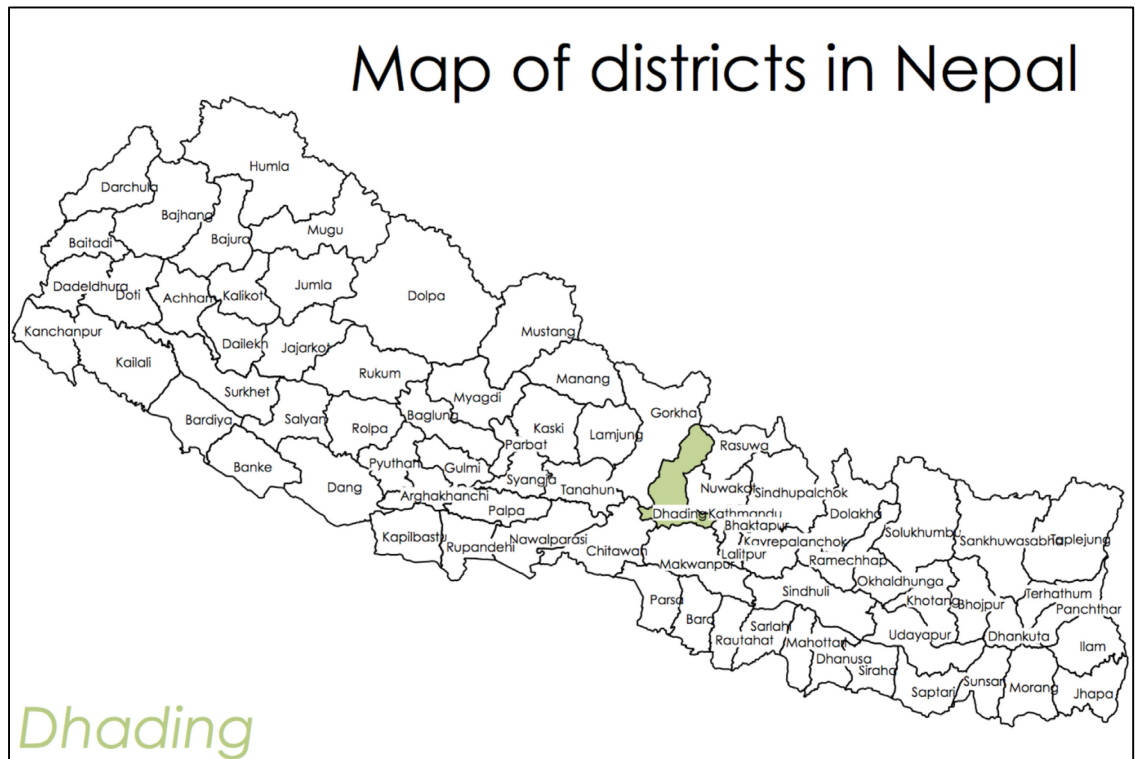
Together, each method was used to build a more complex, in-depth understanding of the reproductive lives of individuals separated from their labor migrant partners. The following parts of this section provide an overview of the qualitative and quantitative methods and research settings. These methods are also discussed within each manuscript in Chapters 4, 5, and 6.

### *Qualitative methods*

Semi-structured interviews with women whose husbands had migration experience were performed to accomplish aims 1 and 2 of this dissertation. These semi-structured interviews were completed with women of reproductive age, interviewed at two time points, between March and May 2016. Following a description of the research setting for this qualitative study, a detailed explanation of the recruitment, data collection, and analysis approach is provided.

### Research setting: Dhading district

Twenty women from rural and urban Dhading district (Figure 3.1) were interviewed in spring 2016. Ten women were recruited in rural and urban areas in a village development committee (VDC) near the highway on the western side of Dhading. The other ten women were recruited in rural and urban areas near the district headquarters (*Dhadingbesi*) located in the middle of the district (OCHA, 2012).



**Figure 3.1. Map of districts in Nepal.**

Dhading, the site where qualitative interviews were performed, is highlighted in green.

Dhading district is located to the west of the Kathmandu Valley in the central development region. This district, which includes both rural and urban areas, is in the hill ecological zone and residents of Dhading rely primarily on agricultural work for their livelihoods (OSOCC, 2015, October 5). There is substantial diversity in caste/ethnic group and religion across VDCs in Dhading district (CBS, 2011; UN, 2008). Significant gender inequalities exist in Dhading district, with approximately 42% of women not being able to read and write (CBS, 2011). Dhading also has a human development index that is lower than the national average (GON & UNDP, 2014). Data gathered from the 2011 Nepal Census showed that approximately 27% of the total households in the district had a man that was currently absent (CBS, 2011). In addition to migration to India and other international destinations like the Persian Gulf and Malaysia, there is a history of seasonal and internal rural-rural migration in this district (KC, 2003).<sup>19</sup> By performing the semi-structured interviews in Dhading district, this study had the unique opportunity to interview women within the context of these complex migration trends.

### **Development of the interview guide**

The interview guide was developed to explore how a partner's labor migration played a role in women's daily lives. The guide (see Appendix 1) focused on household composition and functioning, household roles, and women's reproductive lives, including family planning practices. Participants' knowledge of and exposure to family planning and other health programs in women's communities were also important sections of the

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<sup>19</sup> Dhading district was one of the more earthquake-affected districts in Nepal (OSOCC, 2015, October 5). Following the earthquake, return migration was common as husbands working in other areas of Nepal or internationally returned to perform essential household duties including rituals as well as rebuilding following earthquake-related damages (IOM, 2015). Labor migration may have also increased in Nepal as a result of the earthquake (IOM, 2015; UNWomen, 2015).

guide. The interview guide focused on three dimensions of household gender dynamics and their intersections with spousal labor migration experience and women's reproductive lives: labor, power, and cathexis (Connell, 1987, 2002). Building on seminal work by Wingood & DiClemente (2000), public health researchers have frequently operationalized Connell's theory on gender and power in research on HIV, condom use, and other sexual and reproductive health outcomes (Agrawal et al., 2014; Nyamhanga & Frumence, 2014; Tang et al., 2001). Drawing on Connell's work on gender and power and its application to reproductive health research, the interview guide focused on questions related to women's daily schedules and responsibilities, communication and decision-making in the household and with a spouse, and gender normative attitudes (See Appendix 1).<sup>20</sup>

The interview guide was developed in English and translated into Nepali for data collection. Following the review of the translation by the primary research assistant, the interview guide was pilot tested with three women prior to the start of data collection. Pilot-testing was used to ensure 1) that the translation of concepts and questions from English to Nepali was appropriate; 2) that the translated questions were coherent and

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<sup>20</sup> Labor has been conceptualized as the outcomes of a gendered division of labor such as differences in income or lack of women's participation in the labor market (DePadilla et al., 2011; Wingood & DiClemente, 2000). Researchers have simplified measures to socioeconomic factors, status, or women's employment (Muchomba et al., 2015; Tang et al., 2001). Often, such conceptualizations of labor inequality assume a system wherein participation in a formal economy is dominant. In Nepal, people may not necessarily hold wage-earning positions and rather perform other household roles and work in local agriculture (MOHP et al., 2012; Sherpa, 2010). As a result, questions about labor in this interview guide focused on both paid and unpaid work both inside and outside the household (e.g. agricultural work) to acknowledge the context of these women's lives (Gartaula et al., 2012; MOHP et al., 2012). Secondly, research on power at the household level has focused on decision-making roles (Agrawal et al., 2014; Stephenson et al., 2012; Wingood & DiClemente, 2000; Woolf & Maisto, 2008). Partner communication on key household issues also reflects relational power at the household level (Blanc, 2001), and was therefore an important component of the interview guide. Thirdly, the dimension of "cathexis" was operationalized as individuals' attitudes and beliefs towards men and women's positions within society to reflect gendered socio-cultural norms (Agrawal et al., 2014; Tang et al., 2001; Wingood & DiClemente, 2000).

comprehensible; and 3) that women with labor migrant spouses were comfortable answering the questions. The pilot-testing phase also provided ZH with the opportunity to observe interactions between the primary research assistant and her interviewees in an informal manner prior to the beginning of data collection. A debriefing session following these pilot interviews allowed ZH to provide the primary research assistant with recommendations about how to probe on specific questions and address women's questions or misunderstandings. Adjustments to the interview guide based on these pilot interviews were made before data collection.

### **Recruitment and data collection**

Women were eligible for participation if they were of reproductive age (18–49) and currently married to a spouse with recent labor migration experience. Labor migration experience was defined as having migrated for a period of at least three months over the past five years. Women were recruited based on variation in their partners' labor migration trajectories (e.g. history, destination, or duration). Active recruitment was performed by the student investigator and primary research assistant. Women were identified by female community health volunteers (FCHVs) and HC3<sup>21</sup> peer facilitators and field supervisors working in VDCs of interest. FCHVs, HC3 peer facilitators, and field supervisors suggested community members who were then approached for recruitment by the student investigator and primary research assistant. Following recruitment, interviews were performed at a time and place convenient for the participant. A small non-monetary gift in the form of soap and a small hand towel (of monetary value

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<sup>21</sup> The relationship between the qualitative portion of this study and the HC3 Project is discussed in the *Positionality of the research team* section.



less than \$5.00 USD total) were provided to participants in appreciation for their participation. Participants provided written and oral consent for participation. Women's contact information was gathered during initial recruitment and used to contact them for the follow-up interviews. Upon the completion of the follow-up interviews, women's contact information was destroyed.

Follow-up interviews were successfully completed with 18 of 20 participants (90% follow-up rate). These interviews were used to build rapport between the participants and the interviewer and fill in gaps of knowledge following the first round of interviews; they also enabled more in-depth, woman-specific questions to be posed (Reinharz, 1992). Following each interview, in-depth debriefings between ZH and the primary research assistant were used to identify gaps in understanding. These debriefings were essential to the development of follow-up questions for the second interview and allowed researchers to assess saturation in themes throughout data collection.

### **Data analysis methods**

The analysis approach used was informed by the framework method (Gale et al., 2013; Green & Thorogood, 2013; Srivastava & Thomson, 2009). The framework method outlines a multi-step method for qualitative data analysis that is designed to encourage critical reflection and the comparative analysis of data (Gale et al., 2013; Green & Thorogood, 2013; Srivastava & Thomson, 2009). This research project builds on the framework method to work both deductively and inductively to analyze the qualitative data from semi-structured interview transcripts performed in Dhading district.

Interviews were, with the permission of participants, recorded in Nepali. Two Nepali research assistants, including the primary research assistant and her colleague, transcribed the interview recordings into written Nepali and then translated the interviews into English. Transcripts from the follow-up interviews were linked with initial interviews for analysis. Transcription and translation were followed by 1) the development of a participant matrix and 2) an in-depth coding process. First, the participant matrix was used to ask important socio-demographic questions of each transcript. In this matrix, the following details were documented for each participant: age, caste/ethnic group, marital history and type, type of household, age of marriage, household composition, place of natal home, husband's migration history including whether currently absent, ownership of a mobile phone, work outside the home, and use of a contraceptive method.

A team of five researchers, all women, contributed to the drafting of the coding framework and the application of the codebook to the interview transcripts. This team included: the student investigator, ZH; the principal investigator of the larger Nepal HC3 Project; the primary research assistant; an additional research assistant who assisted with transcription and translation; and a research colleague with years of experience performing qualitative public health research in Nepal. Five transcripts were randomly selected and reviewed by each member of the research team. Each researcher developed a list of topics that emerged from the transcripts. Following a discussion of these concepts and the similarities and differences between the lists, a preliminary coding framework was developed (Gale et al., 2013; Green & Thorogood, 2013; Srivastava & Thomson, 2009). ZH and two Nepali research assistants then coded a single transcript. Differences

in coding of this transcript were compared, and necessary revisions and additions to the preliminary codebook were made. ZH then coded all remaining transcripts. Ten of the remaining transcripts were double-coded by one of the Nepali research assistants, with differences discussed over Skype and discrepancies addressed by consensus. Atlas.ti (2015) was used for all coding procedures.

Following the completion of the coding phase, the qualitative analysis software was used to examine quotations assigned to each code in the coding framework (ATLAS/ti, 2015). For each code, a comparative process was used to examine themes within individual transcripts and between participants (Boeije, 2002). The organization of data into matrices facilitated the comparison of data by code and construct (Gale et al., 2013). Notes on major themes within each individual transcript were compared with notes from interview transcripts with other participants to identify the major themes associated with each code from the coding framework. Integral to this data analysis process was ZH's critical reflection on her own positioning as well as on that of her fellow researchers within the study. These positions are discussed in depth in the "*Positionality of the research team*" section below.

Dissemination meetings that took place in Nepal in fall 2016 constituted another important step in the data analysis process. Multi-level meetings were held with HC3 peer facilitators and field supervisors, with whom ZH and primary research assistant had worked during recruitment and data collection, to discuss preliminary findings and to gather their thoughts and reflections on the project. Presentations were also made for Nepal-based researchers associated with a major medical and public health school in Kathmandu and fellow international development program staff working on other family

planning projects. These presentations facilitated the dissemination of preliminary research findings and allowed research colleagues to pose questions to challenge these findings. Following these meetings, ZH then went back to the qualitative data matrices to re-examine the quotations in light of the questions that emerged during these meetings.

### **“Rigor” in qualitative research**

An intense debate exists in the literature regarding the utility and applicability of the concepts of validity and reliability for qualitative work (Morse, 1999; Morse et al., 2002; Sandelowski, 1993; Tobin & Begley, 2004). Lincoln & Guba’s concept of trustworthiness was used to provide a framework through which the recommendations that methodological scholars often give could be applied to improve the quality of the research product (Denzin & Lincoln, 2000; Shenton, 2004). Informed by Morse’s criticisms of Lincoln & Guba’s framework, this study acknowledges how qualitative researchers’ efforts to distance themselves from validity and reliability have unintentionally led to the perpetuation of qualitative research being perceived as unscientific and lacking rigor (Morse, 1999). Morse et al. (2002) also highlighted how Lincoln & Guba’s framework’s fails to ensure rigor *during* the research process and instead leaves evaluation to after the completion of the study (Morse, 1999; Morse et al., 2002). As a result, multiple approaches recommended by qualitative researchers were incorporated into the design of this qualitative study to address the quality of the qualitative research performed *during* the data collection and analysis phases.

To ensure “validity” or “credibility” of the data during data collection, the student investigator debriefed with the primary research assistant following each interview to

assess her perspectives on the interview as well as challenges or gaps. These notes were referenced during the coding phase and data analysis. Also essential to ensuring the “credibility” were the meetings of the coding team, during which the student investigator conferred with her research assistants and colleagues about themes and constructs identified in the semi-structured interviews (Denzin & Lincoln, 2000; Green & Thorogood, 2013; Shenton, 2004). These meetings of the coding team provided vital feedback sessions for coders and served as a “checks and balances” system. In addition, drawing on constant comparative techniques during coding and data analysis challenged all conclusions to make sure they were supported by evidence from the interviews.

To ensure confirmability and dependability, the methods were written in a detailed, clear, and in-depth manner for readers. Although the social constructivist perspective acknowledges that meanings and interpretations are constantly created and recreated in interactions between individuals (and thus reproducibility is not necessarily possible or desirable), a detailed description of the methods was intentionally provided to enable other researchers to make judgments about the strength of the findings and the conclusions drawn (Shenton, 2004).

During the follow-up interviews, researchers had the opportunity to clarify comments made by participants. Acting as a feedback session for participants, the follow-up interviews helped to ensure that gaps in understanding were filled and that the initial themes identified in the first interview were valid and relevant to the populations with whom the research was being performed. Finally, the reflexivity of the research team, discussed in more depth later in this chapter, was integral to the trustworthiness of the data and the confirmability of the researchers’ interpretations (Denzin & Lincoln, 2000;

Green & Thorogood, 2013; Shenton, 2004). Consideration of *a priori* assumptions and perspectives was essential for each investigator on the project.

### ***Quantitative methods***

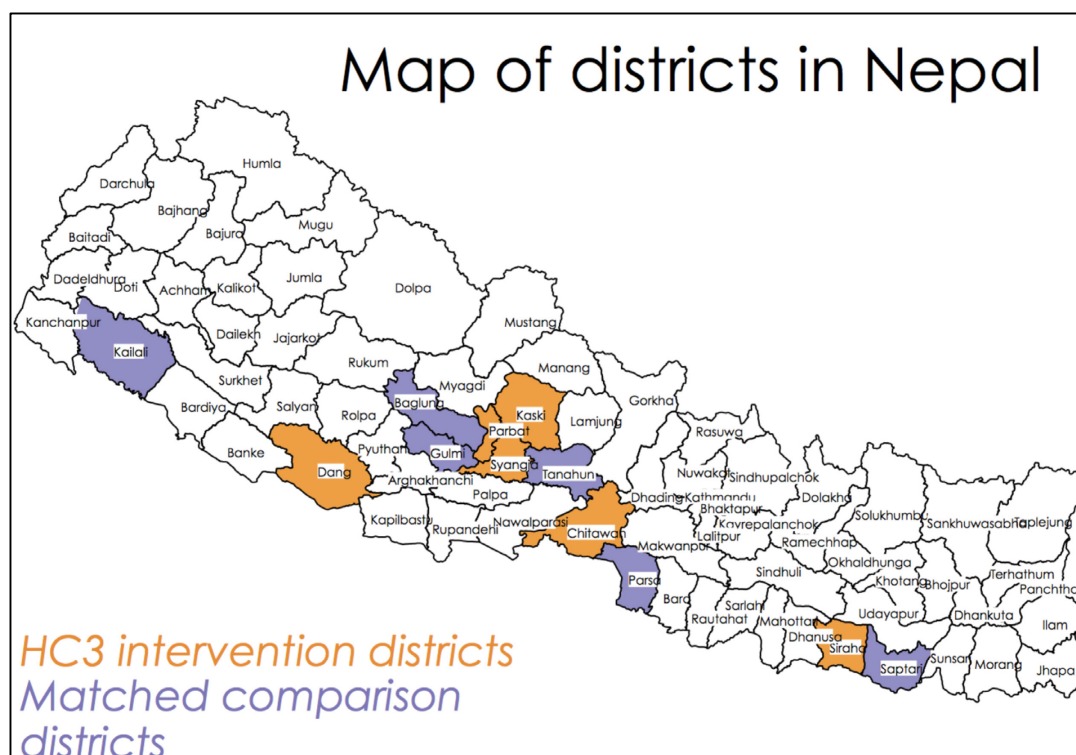
To accomplish aim 3 and investigate the quantitative associations between spousal labor migration experience and women's 1) reproductive lives and 2) intimate relationships, an analysis of a quantitative baseline survey administered as part of the Nepal HC3 Project was performed. This section describes the research setting for this survey, the survey's recruitment and data collection, and the data analysis methods used.

### **Research setting**

In response to the demonstrated inequities in access to and use of health services like family planning, the larger Health Communication Capacity Collaborative (HC3) Project has designed and implemented health communication programs to improve awareness and use of family planning services in multiple countries around the world. The Nepal HC3 Project is a four-year program from USAID awarded to Johns Hopkins Center for Communication Programs (CCP) that aims both to increase institutional capacity in social and behavior change communication and to design and implement a health communication program. The project is focused on youth, migrants, and other historically marginalized populations in Nepal (HC3, 2014, p. para. 4). A major goal is to "increase communication on family planning among communities, families, and peers, thus repositioning family planning as a desired social norm and health solution" (HC3, 2014, p. para. 8). Designed as a panel study, the evaluation of the HC3 Project included a

baseline quantitative survey administered in 12 districts in summer 2015. The Nepal HC3 2015 survey was administered to assess baseline socio-demographic characteristics, communication patterns (including at the dyadic, household, community, and national levels), and family planning practices of women of reproductive age in select districts in Nepal. The endline survey of this panel study will be administered in May 2017.

Twelve districts were selected for the baseline survey: six intervention districts where in-person, district-level activities would take place and six comparison districts matched on district rankings on the Human Development Index as well as district population and size of the population of married women of reproductive age (MWRA). The districts selected for the baseline survey are shown in Figure 3.2. These districts represented four development regions of Nepal: eastern, central, mid-western, and western. Districts were from the plains (*terai*) and hill ecological zones. Mountain zones, where populations are sparse, were not included in this baseline survey due to feasibility of survey administration and population size in these areas, since the hill and *terai* (plains) regions are home to more than 90% of country's population (CBS, 2014).



**Figure 3.2. Map of districts in Nepal.**

The twelve districts sampled at baseline included six HC3 intervention districts (shown in orange) and six matched comparison districts (shown in purple).

### Data collection instrument

The baseline questionnaire included thirteen sections that gathered information on the following topics of relevance to the Nepal HC3 Project:

1. **Socio-demographic characteristics:** Indicators included age, household type (e.g. joint household or nuclear household), or caste/ethnic group
2. **Women's reproductive histories:** Questions asked about recent pregnancies and aspirations for children
3. **Contraceptive practices:** Indicators included ever and current use, type of method, and a 60-month calendar that asked about pregnancies, births,



contraceptive use and discontinuation, and migration status of spouse over the past five years

4. **Fertility preferences:** Indicators assessed current fertility preferences, intentions for future contraceptive use, and preferred family size
5. **Pregnancy and breastfeeding practices:** Items included maternal and antenatal healthcare seeking and exclusive breastfeeding
6. **Immunization and health:** Indicators included vaccinations administered to most recent children
7. **Other health behaviors:** Questions asked about hand-washing and smoking behaviors
8. **Healthcare seeking:** Indicators included attendance at health clinics, quality of care received, interpersonal communication about health topics, and interactions with FCHVs
9. **Social norms:** Items related to norms regarding family planning use
10. **Gender dynamics:** Indicators included women's employment, spousal communication about family planning and child-related topics, and household decision-making
11. **Media exposure:** Questions asked about media channels and family planning-related media exposure
12. **Migration:** Items included women's and their spouses' migration histories, including destination, type of migration, migration requirements, and spousal communication during separation

**13. Social equity and mobility:** Indicators included questions about gender equitable attitudes

For the purposes of this dissertation, socio-demographic characteristics, contraceptive practices, migration histories, and household gender dynamics were of particular interest.

**Recruitment and data collection**

The baseline survey used a multi-stage sampling design. The sample included a randomly selected household sample representative of six Nepal HC3 intervention areas and six matched comparison areas. Recruitment and data collection were performed by Valley Research Group (VaRG) and completed in summer 2015 following the 2015 earthquake.

Each district was stratified by rural/urban status prior to the selection of clusters. Within each rural or urban stratum, the number of enumeration areas (EAs) to be selected was determined based on the population size. Enumeration areas (EAs) were equivalent to the size of a ward and were randomly selected using probability proportional to size (PPS) sampling. Then, within each selected EA, a list of eligible households was gathered and households were systematically randomly selected. Households were eligible for participation if an ever-married woman was residing in the household who was of reproductive age (18-49) and had a child under five years of age. Randomly selected households were then screened to confirm eligibility. Household non-response rate was 1% (n=19 households).

If eligible and after informed consent procedures, a household survey was then administered to the head of household. Other household members were also recruited for participation in the study. Women's husbands (if present), mothers-in-law (35-49), one ever-married woman and one nulliparous woman (18-49), and an unmarried youth (either a man or woman aged 15-24) were recruited for participation. Currently married women of reproductive age who had a child under five comprised 84% (n=1,933) of the total sample of ever married women (including mothers-in-law) interviewed. These women's responses were the focus of all quantitative analyses. Analyses also excluded women who reported currently using a permanent method of contraception (n=140), since these women were not asked about partner communication about family planning topics in the baseline survey. Final analyses therefore included 1,793 women.

### **Measures of interest**

To accomplish aim 3, quantitative analyses were performed to examine the associations between women's reported spousal labor migration experience, partner communication about family planning topics, and family planning practices. The primary outcomes of interest were 1) current use of any contraceptive method (a traditional or modern method) and 2) partner communication about family planning topics. Partner's labor migration experience, based on four measures of migration history, destination, duration, and duration/destination, was the independent variable of interest. Measures of women's household contexts and social locations including age, caste/ethnic group, wealth, educational attainment, household type (joint household vs. nuclear household), family size (based on number of live births reported), rural/urban residence, and

ecological zone were considered as potential confounders in initial multivariate models. A gender normative attitudes scale, based on women's responses to eight questions, was also included in multivariate models and measured using the gender normative attitudes scale (Nanda, 2011; Waszak et al., 2001). More detailed descriptions of the measures used in final analyses can be found in Chapter 6.

### **Data analysis methods**

**Exploratory factor analysis:** To construct the partner communication about family planning scale and the gender normative attitudes scale, exploratory factor analyses (EFA) were performed. For both scales, principal component analysis (PCA) was used to inform the selection of the number of factors for the EFA. For partner communication about family planning, a single factor was hypothesized due to the assumption that partner communication about family planning topics would reflect a single underlying construct related to partner communication about intimate reproductive work-related topics. For gender normative attitudes, two factors were hypothesized due to two factors being present in previous studies using this scale (Nanda, 2011; Waszak et al., 2001). The number of factors selected for inclusion was based on 1) eigenvalues greater than 1 and 2) a scree plot of eigenvalues. For the partner communication about family planning scale, one factor was specified, while two factors were specified for the gender normative attitudes scale. Exploratory factor analysis with iterative principal factoring was therefore performed specifying one and two factors respectively.

For the partner communication about family planning scale, three indicators were included asking about recent communication on family planning use, type of method, and method source, and responses ranged from one (never) to two (once or twice) to three

(more often). For the gender normative attitudes scale, thirteen indicators were originally included whose responses ranged from strongly disagree to strongly agree. Items for the gender normative attitudes scale were re-scaled such that less equitable responses were coded as “1,” and more equitable responses coded as “4” for all items. Participants responding “don’t know” were recoded as missing due to the small sample size.<sup>22</sup> For the gender normative attitudes scale, the two hypothesized factors were allowed to be correlated, using promax rotation, due to the assumption that underlying dimensions of women’s gender normative attitudes would likely be correlated.

Examination of the factor loadings and communalities (the percentage of the variance in each item explained by the factor) of these two scales showed that one- and two-factor models were appropriate, since factor loadings were high ( $\geq 0.4$ ). Items were dropped if they had low factor loadings ( $< 0.4$ ), did not load highly on a single factor, and had high uniqueness (variance not explained by the underlying factors  $> 0.5$ ). For both scales, polychoric correlation matrices were used in EFA as a result of the ordinal nature of the data. Cronbach’s alpha was calculated for both scales, with high reliability defined as a Cronbach’s alpha greater than 0.70 (Tavakol & Dennick, 2011).

All three indicators were kept for the partner communication about family planning scale, while two items were dropped from analyses for the gender normative attitudes scale leaving 11 items. For each scale, women’s responses to each included item in the final scale were summed to create a composite score. For the partner

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<sup>22</sup> Forty-two (42) women reported “don’t know” to at least one of the items in the gender normative attitudes scale. Due to the small number of people (2.3% of total sample) who said “don’t know,” and the lack of knowledge about why participants reported “don’t know,” any participant who reported “don’t know” to any of the gender normative attitudes items was considered missing for the entire scale. “Don’t know” responses did not vary significantly by either outcome of interest. As a result, sample sizes for multivariate analyses excluded women with missing values for the gender normative attitudes variable.

communication about family planning scale, items had high reliability ( $\alpha=0.93$ ) and scores ranged (after centering) from 1–7. The factor structure of the gender normative attitudes scale suggested two correlated sub-scales (factor correlation: 0.51); the first sub-scale, based on women's responses to eight items, had high reliability ( $\alpha=0.87$ ) with responses ranging from 1–25 (after centering), while the second factor (composed of three indicators) had low reliability ( $\alpha=0.67$ ) and so was not included in analyses.

Both the partner communication about family planning and gender normative attitudes scales were dichotomized for analyses. Partner communication about family planning was coded “1” for any communication about a family planning topic and “0” for no communication about any of the three family planning topics. The gender normative attitudes scale was cut at the median for analyses, with “1” coded as more equitable gender normative attitudes and “0” coded as less equitable gender normative attitudes.

**Other exploratory analyses:** Descriptive statistics were calculated for the full sample to assess variations in partner's labor migration experience as well as the percentage of women reportedly communicating with their spouse about family planning topics and current use of a contraceptive method. Exploratory analyses were used to examine relationships between women's household and socio-demographic characteristic and 1) spousal labor migration experience, 2) women's current use of a contraceptive method, and 3) partner communication about family planning. These exploratory analyses informed bivariate and multivariate analyses.

**Bivariate and multivariate analyses:** Bivariate analyses ( $\chi^2$  tests and simple binary logistic regressions) as well as multivariate analyses (multiple logistic regressions) were performed. Variance inflation factors were calculated using post-estimation techniques to

assess collinearity of independent variables included in the model. Post-estimation F-tests were performed to assess individual variables' contributions to models. Individual models were compared using the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC), with low values indicating better model fits. Finally, Hosmer-Lemeshow goodness-of-fit tests were used to assess model fit. Final models adjusted for women's gender equitable attitudes, women's age, household wealth, caste/ethnic group, rural/urban residence, and ecological zone. All analyses were performed using Stata13 (StataCorp, 2013). For more details on the models fit, see Chapter 6.

### **“Rigor” in quantitative research**

To ensure the methodological rigor of the quantitative portion of this dissertation, internal validity, measurement validity, and generalizability were considered during the research process (Schutt, 2012). An essential component of internal validity is an assessment of the study design and the types of associations and conclusions that can be drawn. The baseline survey from the Nepal HC3 Project was cross-sectional, which prevented temporal associations from being drawn and limited the ability to make causal claims. In this dissertation, analyses performed in Stata13 were designed to examine associations between labor migration experience and women's reproductive lives and intimate relationships with their spouses. However, these associations were not intended to prove any causal relationship but instead designed to shed light on these potential relationships for future research.

Measurement validity assesses the extent to which the measures used are measuring the topic or construct that the researcher intends to measure. The HC3 baseline survey utilized migration-related indicators that were recommended by migration researchers (de Brauw & Carletto, 2012; Schenker et al., 2014) or that had been used in previous assessments of migration in Nepal (CBS, 2010; de Brauw & Carletto, 2012). Reproductive health, partner communication, and socio-demographic measures were also worded to be consistent with other national survey items previously used in Nepal (MOHP et al., 2012). Reliability of scales used in analyses was assessed using Cronbach's alpha where relevant (See Chapter 6).

Indicators used in analyses were based primarily on women's self-report. Of note, variables used in the construction of the wealth index were based on the head of household's self report or the interviewer's observations. Self-report, as discussed in Chapter 6, is subject to social desirability bias as well as recall bias, both of which may have affected the observed relationships between spousal labor migration experience and women's reproductive lives and intimate relationships with spouses (DiClemente et al., 2013; Schutt, 2012). Although there was the potential for recall bias with the definition of migration experience spanning a five-year recall period, migration causes dramatic and memorable shifts in the structure of the household, and it was unlikely that this bias led to serious under- or over-reporting of migration experience. Measures of migration duration presented in Chapter 6 also relied on calendar data. Researchers have critiqued the reliability of schedules or calendars administered in surveys, such as calendars of contraceptive use, due to the limited accuracy among individuals with complex usage histories (Callahan & Becker, 2012). However, these studies of the reliability of calendar



data have also shown that such schedules have similar reliability to assessments of contraceptive use using other items in the questionnaire (Callahan & Becker, 2012). Furthermore, Callahan & Becker (2012) found no significant variation in reliability by education or wealth.

Finally, generalizability of the study is affected by the sample and sampling frame, which limit the conclusions that can be drawn about the applicability of the findings to other populations (Schutt, 2012). Based on the restrictions of the sampling frame to 12 districts in Nepal, wherein a multi-staged sampling technique was used to randomly sample households within enumeration areas in these districts, conclusions drawn in Chapter 6 are not generalized to the entire country of Nepal. Instead, they are representative of currently married women of reproductive age, not currently using a permanent family planning method, who have a child under five and reside in one of the 12 districts sampled in the baseline survey. Since the survey intentionally selected districts across multiple development regions and in both hill and *terai* (plains) ecological zones, it is possible that the associations identified in these districts could be similar to those nationally. Additional research is needed to facilitate such comparisons.

### *Ethical approval*

The Johns Hopkins Bloomberg School of Public Health (JHSPH)'s Institutional Review Board (IRB) and the Nepal Health Research Council (NHRC) approved both qualitative and quantitative methods. The Nepal HC3 Project's baseline survey was approved in 2015, and ZH was approved as a student investigator on the project. A separate application was submitted for the qualitative study designed to accomplish aims

1 and 2, which was approved in early 2016. ZH was also listed as a student investigator on this project.

### **Positionality of the research team**

An essential component of a constructivist epistemological perspective is the acknowledgement of the pivotal role of the researcher in the collection and construction of knowledge. It is therefore necessary for researchers, both qualitative and quantitative, to acknowledge and be reflexive about the unique ways in which their social positioning affect their roles in the research process, how the data was collected, and the ultimate conclusions drawn from analyses. This section highlights three important aspects of this research project: 1) the family planning project within which it was situated, 2) the position of privilege and understanding of the student investigator, and 3) the positioning and unique life phase in which the primary research assistant found herself during data collection and analysis.

This research project drew from baseline quantitative data gathered from the Nepal HC3 Project and qualitative data gathered with institutional support from the HC3 Project. ZH worked with the Center for Communication Programs (CCP) in Baltimore prior to her fieldwork in Nepal, during which she contributed to the formative research and development of the baseline questionnaires for the project. During her fieldwork in Nepal, she shared office space in the HC3 headquarters in Kathmandu, where she continued her work for the Nepal HC3 Project in country by providing data analysis support for the Chief of Party as he fulfilled requests by USAID and other development partners working on similar reproductive health topics in settings around Nepal.

This role gave ZH access to the inner workings of the HC3 Project and exposed her to program materials, campaign messages, and the nature of program activities and work both at the national and district levels. Through this work, ZH also contributed to analyses for dissemination reports and attended research meetings with government and development agency officials. This work as a research assistant allowed her to get intimately familiar with the quantitative data at the same time as the qualitative data was being collected. Data explorations were run in conjunction with conversations with women about their husbands' migration trajectories and changes in their daily and reproductive lives upon their husbands' departures. In addition, such exposure was pivotal to expanding knowledge of how USAID family planning programs work and collaborate with other agencies in Nepal. It also shed light on how the local and national health systems function in Nepal. Most importantly, the institutional support provided by the Nepal HC3 Project provided her with immediate access to health workers working at the district level who were familiar with eligible women who could be recruited to accomplish the qualitative aims of this research project.

At the same time as ZH's position within the USAID-funded Nepal HC3 Project opened doors and facilitated access to district- and national-level conversations about family planning in Nepal, it is also important to acknowledge the historical relationships and power inequalities that such USAID projects have in small communities in Nepal and in other countries. An affiliation with USAID streamlined the research process but also affiliated the project with international development (in Nepali, *bikaas*) and all of the pros and cons that come with international development (Brunson, 2016; Pigg, 1993).

Such international power dynamics were visible not only at the institutional level, but also in daily interpersonal interactions between the student investigator and Nepali men and women in Dhading. ZH's identity as a white, American, educated woman pursuing her doctorate from a university internationally recognized to be associated with health and medicine gave her a position of power in meetings with Dhading district-level staff and health workers. In Nepal, an important step in the research process – following the receipt of ethics approval – is to meet with local officials for their approval of your work. Such approval often takes place informally in meetings at the district health office or health posts. An example of the social position ZH held was evident in these meetings, as the following story from her field notebook explains:

*Power dynamics: There was a clear power dynamic taking place in the meetings. The men in charge were talking directly to me. There was a clear power differential playing out in terms of the use of space. In the second meeting at the health post, the meeting took place informally outside the facility. The female health workers brought out the chairs and put them in a circle while the men all sat together for a discussion. The women sat away from the circle, listening, except me. I was part of the conversation with the men, with my research assistant sitting separately outside the circle with the female health workers, even though the conversation took place in Nepali and my understanding was limited. I had to intentionally include her in the conversation to make her a part of the circle. I was part of the conversations when the other women were not. (23 March 2016)*

This project potentially benefitted from the place of privilege and power within which the student investigator was situated. Such affiliations facilitated the meetings' success. At the same time, it is also important to think about how this role affected interactions with women during data collection. ZH was easily identified as a foreigner in the field, and the primary research assistant's social position – that of an educated, Kathmandu-dwelling woman who was fluent in English and contemplating international migration for further graduate study – also set her apart from women living in study sites in Dhading district.

To address the potential influence of such power inequities, ZH and her research assistant worked with the FCHVs, peer facilitators, and field supervisors (rather than district- or national-level staff members) who were known by or familiar with the women recruited for participation in the study. This type of collaboration reduced the researchers' appearance as outsiders and gave them access to communities that might have been more challenging to secure without these women's assistance.

The student investigator and her primary research assistant drew on their shared identities as women to establish rapport and build relationships with the participants during recruitment and data collection (Reinharz, 1992). Shared identities have the potential to facilitate relationships and rapport, but may also lead participants to fail to explain particular experiences through an assumption that the researcher may implicitly or inherently already understand a particular type of experience that the participant had on the basis of their shared identity (e.g. the "You know what I mean" phenomenon) (Ochieng, 2010). The primary research assistant attempted to address this concern in her request to have the student investigator present during all interviews. Drawing on her previous experiences in the field, she thought that the participants would be more willing to share their experiences in depth if ZH were present during the interviews. As both a woman and a foreigner, ZH's presence may have affected the interviews with women in multiple, complex ways.

Integral to the data collection process was the rapport established between the primary research assistant and the participants. Much of this rapport was built on the shared experience of being a Nepali woman. At the same time, the primary research assistant's positionality was particularly unique. During data collection, she was in the

midst of deciding whether or not to agree to an arranged marriage with a man in Kathmandu. Prevented from frequent contact with family and friends in Kathmandu while in the field and due to technological issues with her cell phone, the topic dominated conversations between the primary research assistant and ZH in between interviews and, interestingly, played an important role in the data collection process. The primary research assistant was intrigued by the relationships women had with their husbands, how those relationships had changed over time – including how the change had been influenced by migration – and what type of marriages women had. During these parts of the interviews, ZH witnessed a shift in the interactions between the primary research assistant and the participants as they bonded over questions about relationships, love, and marriage. These questions were an important component of the study's research questions and interview guide. As a result, the research assistant's phase of life became relevant to the quality of the data collection as her own life experiences facilitated communication and built rapport in ways that would have been more difficult for an interviewer who was not listening so intently to the participants' responses for personal reasons. The primary research assistant reflected on the value of such experiences both personally and for the research project on multiple occasions during quiet moments in the field.

Highlighted in this section were different ways in which power dynamics and social positions were involved in the data analyzed in the following chapters. Together, this section took a reflexive approach to exploring how the qualitative and quantitative data from this dissertation was related not only to the social positioning of the student investigator, but also affected by the primary research assistant and the larger public health institutions with which it was affiliated.

## Conclusion

This chapter provided an overview of the research setting and multiple research methods used to accomplish the aims of this dissertation. Chapters 4, 5, and 6 highlight the results of the qualitative and quantitative analyses described here. These chapters correspond with each of the three aims outlined in Chapters 1 and 2.

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## **Chapter Four: Manuscript #1**

### **The intimate economies of labor migration: The reproductive lives of women with an absent spouse in the central hill region of Nepal**

#### **Abstract**

Limited attention has been given to the effects of labor migration on women “left behind,” particularly women’s reproductive responsibilities and practices that are reinforced and challenged as men travel for work. Drawing on two rounds of qualitative interviews with 20 women in the central hill region of Nepal, this manuscript uses the concept of “intimate economies” to highlight how global economic processes that lead Nepali men to travel for work to support their families also affect women’s reproductive lives. This study highlights three distinct ways in which a husband’s labor migration has concrete implications for women’s reproductive lives. First, a husband’s migration reinforces women’s responsibility over the realm of reproduction and reproductive work. Second, husbands’ migration patterns play a pivotal role in the types of family planning methods their wives consider and when they plan to start or stop using these methods. Third, women highlighted how their reproductive lives and identities become sites of surveillance wherein interactions with health providers and contraceptive use are viewed as indicators of infidelity as their spouses migrate. These findings reflect the ways in

which a husband's migration restructures and reorients the reproductive lives of women  
“left behind” in Nepal.

## Background

### *Labor migration and women's reproductive lives*

For couples of reproductive age separated by labor migration, temporary periods of cohabitation and separation may affect decisions about whether to have children or use contraception. As a result, migration may reorder or disrupt reproductive roles and practices (Sobotka, 2008). Although research on the effects of temporary migration on fertility is limited (Agadjanian et al., 2011; Clifford, 2009; Sevoyan, 2011), evidence suggests that migration and spousal separation can have both positive and negative associations with fertility behaviors and family planning utilization over time (Agadjanian et al., 2011; Kulu & Milewski, 2007; Lindstrom & Giorguli-Saucedo, 2007; Sevoyan & Agadjanian, 2013).

Limited work has examined how the reproductive responsibilities and practices of women “left behind” are affected by their husbands’ migration trajectories. One recent study in Pakistan has suggested that although men’s migration may increase women’s responsibilities (e.g. control over family expenditures), women’s fertility preferences are often ignored in the context of their partners’ migration (Sultana, 2014). Women are therefore faced with social pressure for failing to achieve their desired family size in the absence of their spouses (Sultana, 2014). In contrast, spousal labor migration has been associated with reduced contraceptive use among non-migrating wives in Mozambique, Nepal, and other settings (Agadjanian et al., 2011; Dayama et al., 2012; Khanal et al., 2013; Mansur et al., 2012). Wives of more successful migrants – defined by receipt of remittances and perceived improvements in women’s households – have been shown to be more likely to use contraceptives than wives of non-migrants or less successful

partners (Agadjanian et al., 2011). At the same time, spousal migration also acts as a double-edged sword for women “left behind,” with surveillance and control over women’s bodies and actions – both by partners and within the larger community – leading to greater restrictions for women while their partners are away (Dannecker, 2005; Hannaford, 2015). Often, such surveillance and concerns over reputations are linked with suspicions of infidelity during periods of spousal separation (Coe, 2011; Hannaford, 2015; Rasmussen, 2016, May 3).

In light of the variation in existing evidence and the dearth of studies of the reproductive lives of women “left behind” by labor migration (Agadjanian et al., 2011; Sevoyan, 2011), further studies at the intersections of spousal labor migration and reproductive health are necessary. This manuscript seeks to fill these gaps by exploring how women’s reproductive responsibilities and practices are affected by their partners’ migration in Nepal, a country where male labor migration is increasingly common.

### *Research setting: Labor migration patterns in Nepal*

A centuries-long history of migration in Nepal has led to the routine depletion of young men from many rural Nepali communities (Thieme & Wyss, 2005). While internal and transnational labor migration has occurred for centuries, the number of men migrating for work in Nepal has greatly expanded in recent decades (Poertner et al., 2011; Sunam, 2014; Thieme & Wyss, 2005). Today, more than 2 million Nepalis are migrating for work internationally (CBS, 2011; IOM, 2015). Data from the 2011 Nepal Demographic and Health Survey (NDHS-11) showed that 32% of women had partners living outside of the household (Khanal et al., 2013). Internal migration and international



travel to India, Malaysia, and countries in the Persian Gulf are the most common destinations (GON, 2014). Many men take loans to pay for recruitment agencies, language exams, placement fees, and travel arrangements to prepare them for their new employment (GON, 2014). Upon arrival, men are often employed in labor and service industry positions (Gurung, 2004). The economy of Nepal is greatly dependent on labor migrants, and remittances are equal to 29% of Nepal's gross domestic product (GDP) (Ratha et al., 2016).

This major demographic shift has changed household compositions throughout Nepal. Research on the relationship between reproductive health and migration in Nepal has been dominated by studies on migrants' sexual risk and HIV (Awasthi et al., 2015; Bam et al., 2013; Dahal et al., 2014; IOM, 2015; Johnson et al., 2016; Poudel et al., 2007; Puri & Cleland, 2006; Thapa et al., 2014; Vaidya & Wu, 2011), with quantitative evidence of contraceptive use among migrant couples in Nepal limited to cross-sectional studies of current contraceptive use by cohabitation status (Khanal et al., 2013). An analysis of NDHS-11 data showed that current use of any contraceptive method was 25% among women whose husband had been away for less than one year, while only 20% of women whose husbands had been away for at least one year reported currently using a contraceptive method. In comparison, 62% of women who were currently living with their spouse reported using a contraceptive method (Khanal et al., 2013). Women using contraception while their spouses were away were predominantly using permanent methods, while temporary methods like injections or pills were less common.<sup>23</sup> However, as this paper and previous research (CREHPA, 2012) illustrate, some women in Nepal

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<sup>23</sup> This method mix differs greatly from the method mix of women cohabitating with their partners, who report greater current use of temporary methods like pills, injections, condoms, and withdrawal (Khanal et al., 2013).

start and stop using contraception in conjunction with their husbands' migration. A further, more in-depth investigation of the reproductive lives of Nepali women with labor migrant husbands is needed to identify the reproductive needs of this population and inform family planning programs.

### *Theoretical framework: The intimate economies of labor migration*

Within an increasingly globalized world, individuals navigate transnational space or “global projects” (Browner, 2011; Pigg, 2005), creating and maintaining transnational social fields through communication, remittances, and other forms of social connection (Glick-Schiller et al., 1992; Hirsch, 2003; Levitt & Schiller, 2004; Padilla et al., 2007). People construct identities in transnational systems that span geographic and socio-cultural boundaries (Gardner & Osella, 2004). As a result, the examination of the experience of migration by individuals, households, and communities that are “left behind” is essential (Cohen, 2001; Hannaford, 2015; Hirsch, 2003; Pauli, 2008; Smith-Estelle & Gruskin, 2003; Sunam, 2014; Toyota et al., 2007). Feminist critiques of women “left behind” highlight how this term not only implies that women lack agency but also attributes the migrant himself with agency that may not be reflective of his lived reality (Hannaford, 2015; Pauli, 2008). In response, this study and others focus intentionally on women “left behind” to confront assumptions of women’s passivity to explore how labor migration is experienced and constructed by non-mobile partners (Hannaford, 2015).

Political, socio-historical, and economic processes that lead to labor migration are implicated in modern understandings of love, the meanings of intimacy, and even contraceptive use (Hirsch, 2003; Maternowska et al., 2010; Padilla et al., 2007). The

concept of intimate economies (Wilson, 2004) offers a framework through which to understand how transnational and global processes of migration for work are implicated in the lives of women “left behind.” In an investigation of global economies and capitalism in Bangkok, Wilson (2004) used the term “intimate economies” to refer to the often ignored links between global economic processes, including those that affect migration and remittance flows, and individuals’ lived experiences, or “the deeply felt orientations and entrenched practices that make up what people consider to be their personal or private lives and their individual selves” (Wilson, 2004, p. 11). Collantes (2016) applied the concept of intimate economies to female migrant workers in the Philippines to explore how gender dynamics and ideologies in households affected women’s migration experiences and in turn were linked with reproductive decisions or “dilemmas” (Collantes, 2016, p. 78). Desires and opportunities to migrate for work led some women to challenge traditional gender norms and delay decisions to get married and have children, while reliance on remittances from family members led to restrictions on other women’s negotiating power in decision-making about contraception (Collantes, 2016). This study draws on Wilson (2004)’s concept of intimate economies and transnationalism and applies it to the experience of Nepali women “left behind” in an historical and socio-cultural setting where labor migration among *men*, rather than women, remains the dominant trend (MOHP et al., 2012). This qualitative study examines how household reproductive responsibilities and practices are shaped and reshaped as Nepali women’s spouses migrate for work.

## Methods

Two rounds of semi-structured interviews were conducted with female community members in Dhading district, Nepal. Dhading district is in the hill ecological zone and is located in the central region, west of Kathmandu. Twenty women were actively recruited in spring 2016. Follow-up interviews were completed with 18 of the 20 women (90%).

### *Recruitment*

Purposive sampling was used to recruit Nepali women with labor migrant spouses. The primary research assistant and first author approached community members identified as eligible for the study by female community health volunteers (FCHVs) and peer facilitators working with the Nepal Health Communication Capacity Collaborative (HC3) Project (HC3, 2014). Interviews were conducted in Nepali at locations convenient for the participants.

Currently married women of reproductive age (18–49) were recruited due to this study's focus on reproductive practices (HC3, 2014; MOHP et al., 2012). Eligible women were residents of Dhading district and had a spouse with labor migration experience, defined as having lived away from home for work for at least three months continuously during the last five years. Women were recruited to ensure variation in partner's migration experience (e.g. current destination, duration of absence, and migration history). Recruitment took place in rural and urban settings in two areas: near the major highway in the southwestern section of Dhading and adjacent to the district headquarters.

Women were interviewed twice to 1) establish rapport and build trust between the interviewer and the participants and 2) enable the interviewer to clarify responses and ask each participant relevant follow-up questions during the second interview (Reinharz, 1992). Following each interview, the first author and primary research assistant debriefed and discussed potential topics in need of further exploration. These debriefing meetings allowed iterative revisions to the interview guide as necessary and the assessment of saturation in themes throughout data collection. Ethical approval for this study was received by the Johns Hopkins Bloomberg School of Public Health (JHSPH) IRB and the Nepal Health Research Council (NHRC).

### *Interview instrument*

Interviews explored the effects of a spouse's migration on household functioning, roles, and family planning practices. Questions addressed perspectives on reproduction, attitudes about reproductive practices, household gender dynamics, changes in the household during and following spousal migration, social interactions during spousal migration, and familiarity with and understandings of family planning programs in the community.

### *Analysis process*

The framework method was used to analyze interview transcripts, which systematically organizes evidence for rigorous and critical reflection (Gale et al., 2013; Srivastava & Thomson, 2009). All interviews were audio-recorded, transcribed in Nepali, and translated into English for analysis. Initial and follow-up interviews for each

participant were linked and analyzed together. The research team took a deductive and inductive approach to code development and thematic analysis. First, a set of *a priori* hypothesized constructs identified in the literature on household gender dynamics, labor migration, and family planning practices were included. The research team independently reviewed a randomly selected set of five transcripts and identified key concepts evoked in the data (Gale et al., 2013). A comparison of these coding structures and the *a priori* constructs identified in the literature led to the development of a preliminary coding framework. Three members of the research team (ZH, SL, and BTS) coded one transcript with this coding framework, with revisions made to clarify code definitions. The first author then coded all transcripts, with 50% double-coded by a second member of the research team for consistency. All qualitative coding was performed in ATLAS.ti (ATLAS/ti, 2015), which was used to consolidate and organize coded segments for analysis and interpretation. During analysis, a comparative process, informed by constant comparative techniques, was used to compare and contract themes within individual transcripts and between participants (Boeije, 2002; Gale et al., 2013). Compiled data matrices or charts organized by code or construct were created using ATLAS.ti to facilitate analysis (Gale et al., 2013).

Strategies recommended by Lincoln & Guba were used to assess the study's credibility, dependability, and overall trustworthiness<sup>24</sup> during data collection, the coding process, and analysis (Denzin & Lincoln, 2000; Shenton, 2004). Debriefing in the field and meetings of the coding team were used to ensure "credibility" (Denzin & Lincoln, 2000; Green & Thorogood, 2013; Shenton, 2004). A detailed description of the methods

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<sup>24</sup> The utility and applicability of the concepts of reliability and validity for qualitative work has been debated and is discussed in more depth in Chapter 3 (Sandelowski, 1993; Tobin & Begley, 2004).

is provided here to enable an external assessment of the dependability and confirmability of all conclusions (Shenton, 2004). Coding and analytical decisions were made at coding team meetings and were justified and based on consensus to ensure the trustworthiness of the data analysis. Constant comparative techniques provided a mechanism to challenge conclusions to confirm that they were supported by data. The first author also addressed confirmability by considering the *a priori* assumptions and perspectives held by the first author and primary research assistant in memos drafted throughout the data collection and analysis process (Denzin & Lincoln, 2000; Green & Thorogood, 2013; Shenton, 2004).<sup>25</sup>

## Results

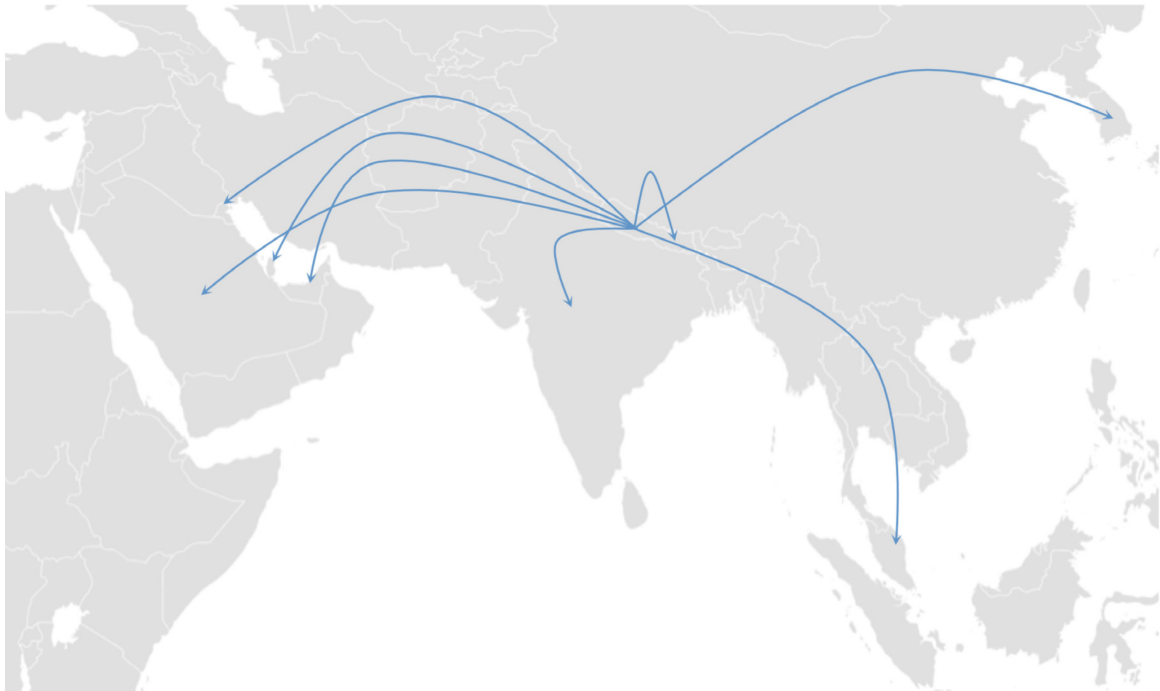
### *Study sample: Women's social locations*

Participants were between 20 and 42 years old. Women from a variety of caste/ethnic groups were interviewed, with Brahmin and Chhetri (traditionally higher caste/ethnic groups), Dalit (an often marginalized group), and Newari (an indigenous group from the Kathmandu Valley) the most commonly reported (Bennett et al., 2008). None of the participants reported that they themselves were using a permanent contraceptive method (i.e. female sterilization). Love and arranged marriages were nearly equal among women interviewed. Approximately half of women interviewed lived in joint families, with the other women living separately from, although not necessarily far from, their in-laws.

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<sup>25</sup> See Chapter 3 for a detailed discussion of the positionality of the research team.

Nearly all women's spouses were currently migrating for work (n=19), while one woman's husband had returned within the past 6 months. Their husbands had recently worked in a variety of locations, with Malaysia, Qatar, and the Kingdom of Saudi Arabia the most common destinations (Figure 4.1). Women's husbands would return more frequently (from time to time or every year) when working elsewhere in Nepal or India, but return visits were less frequent and contract dependent (every 2–3 years or less frequently) upon migration to the Persian Gulf or Malaysia. Across interviews, participants discussed the effects of their spouse's labor migration on gendered expectations and reproductive roles and responsibilities, family planning practices, and narratives of infidelity. These themes are explored in the following sections.



**Figure 4.1. Husbands' migration trajectories by destination according to participants.** Destinations included internal migration to other areas in Nepal, India, Qatar, United Arab Emirates, Saudi Arabia, Kuwait, Malaysia, and South Korea.



### *Gendered expectations and women's reproductive work*

The limited employment opportunities in Dhading were a major concern and motivating factor leading men to migrate for work. While some women said employment opportunities were not available because their husbands lacked sufficient education, this was not true for all women interviewed. As Kanchhi <sup>26</sup> said the first time we spoke, her husband was educated but still could not find a job.

*“See, we live in a hilly area. He is educated but there were no jobs. We don't have any other skills to sustain our lives. Grass cutting, farming are jobs for women, not men. The income from the vegetables that we plant during the monsoon is enough just for the bus fare. So, we decided that he would go abroad to earn money. We felt the need of earning and educating our child, so we had to make this decision. He had gone abroad previously also.”* (Kanchhi, late twenties, rural, arranged marriage, husband in Qatar)

Grass cutting and farming were forms of work for women, while men were expected to perform work that earned money. These gendered notions of labor affected what job opportunities existed for men in both rural and urban areas of Dhading district.

The lack of opportunities highlighted by Kanchhi was often linked with other economic reasons for migration. Men left due to limited incomes and the need to earn money to support the family. Women highlighted the inability to save, high expenditures, and household poverty as reasons why migration was necessary. The economic reasons given were intrinsically linked with the needs of the household, the family (including the extended family), and most importantly, the children. Women routinely mentioned children's education and other expenses as the reasons their husbands were working elsewhere.

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<sup>26</sup> Note: Pseudonyms were used to protect the confidentiality of participants.

*P: "We both decided [he would migrate for work] together. We discussed that now since we have children, we have to raise them, provide good education. He said he would migrate for work and I would look after the shop."*

*I: "Why did your husband migrate?"*

*P: "To earn money. If we were wealthy, he wouldn't have gone. He went for the sake of the future of our children." (Gita, late twenties, rural, love marriage, husband in Saudi Arabia)*

Migration was often described as a necessity and was intimately linked with hopes for their and their children's futures. As Ranjana said, "We need to secure our future by working hard at the present" (Ranjana, mid-twenties, urban, love marriage, husband in Dubai). Importantly, gendered expectations of men's roles as fathers and financial providers affected migration decisions.

*"Being a male member, my husband is supposed to earn. No male member stays idly at home. I tell him to stay here and work in the field instead of going abroad but he has to go. One has to work. There is no other option." (Sumitra, mid-twenties, urban, arranged marriage, husband in Dubai)*

Together, these quotations demonstrate the intertwined motivations for labor migration, which are the product of the lack of employment opportunities, economic demands on couples and families, responsibilities for the care and nurture of children, and desires for a better future. The gendered migration patterns in Nepal have led to the out-migration of married men from both urban and rural areas, leaving married women behind.

In the absence of their husbands, women's daily roles and responsibilities changed. Women reported being solely responsible for household work and other duties, and their responsibilities over childcare were accentuated by the absence of their husbands. Gendered expectations of men as financial providers for children, which led to their migration, further left reproductive work like caregiving to women. In the quotation

below, Gita highlighted how her husband used to assist her in her daily work, which included her work as an FCHV, household responsibilities, and childcare.

*“When my husband was here, he used to help me do works [chores]. If I didn’t get time to do my work, he used to go and bring the data files [relevant to her work]. It’s difficult for one person to look after children, send them to school, and go to work.”* (Gita, late twenties, rural, love marriage, husband in Saudi Arabia)

In the absence of their husbands, and particularly if they were living separately from their in-laws, women often reported being the sole caregivers for their children. Reproductive work like childcare was seen as a women’s responsibility in the absence of their spouses. Mankumari explained this by saying, when asked how often she talked with her husband regarding childcare, “My husband says that it is my responsibility to take care of my daughter” (Mankumari, early thirties, urban, love marriage, husband in Qatar).

With this reinforcement of their roles as caregivers, some women saw the potential for another child as a responsibility they alone would have. The burden of reproduction was expected to fall disproportionately on the shoulders of the woman “left behind.” Kanchhi explained that the burden of reproduction was her primary reason for planning to use contraceptives when her husband returned to Nepal. She said, “Otherwise there is a fear of getting pregnant. He will go away and I will face the problem.” (Kanchhi, late twenties, rural, arranged marriage, husband in Qatar). For Kanchhi, using a contraceptive method would prevent a pregnancy that would be her “problem” due to the absence of her husband. Her husband’s absence therefore affected not only her fertility desires but her family planning intentions as well. This sentiment was echoed by Meera, who despite her husband’s belief that “it was not necessary,” decided on her own to use an injectable form of contraception because “otherwise, it would be difficult for me only” (Meera, early thirties, rural, arranged marriage, husband in Malaysia).

As men migrate in search of financial opportunities to enable them to fulfill gendered expectations to provide for their families, women “left behind” described how reproductive work like childrearing and childbearing became reinforced as their responsibility. Women’s attitudes about the burdens of reproduction, which according to participants would be disproportionately felt by women, led some to use or intend to use a contraceptive method to prevent pregnancy.

*What method and when to use: Implications of spousal labor migration for women’s family planning practices*

The transient presence of a husband in the household was linked with the types of methods that women thought were preferable. Temporary methods were used around the spouse’s return and were started and stopped in conjunction with the spouse’s vacation schedules. In contrast, women reported using different methods once their husbands returned permanently. One woman adopted a long-acting method, an intra-uterine device, after conversations with her husband when it was thought that he would not migrate again.

*“We had not used any big temporary method. He said he would stay in the house for two years. So, I used it [Copper T]. We started having problems, loans after one year. So, he left for abroad. Initially, I used it as he said he would not go.”*  
(Janaki, early forties, rural, arranged marriage, husband in Dubai)

The same economic demands that led her husband to migrate also meant that Janaki was currently using a long-acting contraceptive method while her husband was gone.

Another woman hoped to have her partner undergo a vasectomy, but only once he returned permanently to Nepal. Due to her fear of side effects of the vasectomy, her

husband's work abroad took priority over the desire to use a more permanent method, resulting in her continued use of a temporary contraceptive method.

*I: "You have three children. Do you want to have more children?"*

*P: "No. When my husband comes back, I am going to use Depo as it works for three months. While using pills, you may forget... We are discussing getting a vasectomy when he permanently stays at home. If he gets a vasectomy now, it may weaken his health. People say he may suffer from nerve pain, back pain. He has to do a lot of work standing all day. So, I think I won't tell him to get a vasectomy now." (Sumitra, mid-twenties, urban, arranged marriage, husband in Dubai)*

Sumitra's spouse has a job that required physical strength – a position that would be threatened by the side effects perceived to be associated with a vasectomy. Sumitra's decision regarding the vasectomy was therefore made within a transnational setting that was influenced by her husband's work abroad. The lack of economic opportunities in Dhading, which led Sumitra's husband to migrate to Dubai, therefore had direct effects on the reproductive choices that Sumitra had.

Participants rarely reported contraceptive use when separated from their spouse. In conjunction with husbands' returns during vacations and visits to Nepal, however, women described complex and varied usage patterns. While women reported discontinuing their method when their husbands left, they also re-adopted the method upon his return. Such re-adoption varied, with women reporting that they would 1) adopt after he returned, 2) adopt 2-3 days before he returns, 3) adopt a week or more before he returns, or 4) might not adopt at all. In the following quotation, Sumitra highlighted one such approach to adopting contraceptive methods.

*"If he is coming today, I buy it 2-3 days before his arrival. I take it before my meal on the day of his arrival. Doctors say that I have to continue even after he leaves as it is important to complete the course, but I don't take it." (Sumitra, mid-twenties, urban, arranged marriage, husband in Dubai)*

By taking contraceptive pills prior to the arrival of her husband, Sumitra made sure to adhere to provider recommendations. At the same time, her adherence was affected by her husband's departure.

Among participants, injectable contraceptive methods and contraceptive pills were the most common methods reported. Women often sought services at local health posts as Kanchhi described below:

*I: "Did you face any obstacles during the process of getting the tablets from the clinic?"*

*P: "No. They ask certain questions about my menstruation cycle and whereabouts of my husband, that's it." (Kanchhi, late twenties, rural, arranged marriage, husband in Qatar)*

Although not reported as an obstacle to receiving the desired services, women described how questions about their menstruation cycles were complemented by inquiries about the whereabouts of their husbands during their interactions with providers at the local health post.

### ***Labor migration and infidelity: Surveillance over women's reproductive lives***

Consistent across interviews was the perception that contraceptive use was not necessary when one's husband was away. Most women maintained that they did not see contraceptives as necessary and reiterated that they themselves had never used when their husbands were away. Most women also did not report hearing, or did not know about, others in their community using family planning when their husbands were away.

When some women did report having heard of others using contraceptive methods while their spouses were away, these stories were often anonymous, set outside of their own village, or reportedly heard on the news. One woman spoke of such behavior

among friends, but clarified that the only reason she was sharing this information was because the research team was not a part of that community.

*“My friends come here and ask me about condoms. They know that I work in an organization related to HIV/AIDS. So, they come and ask me secretly. Their husbands are away for work - some work as laborers. I advise them not to have sexual contact with their partners without using condoms. Since you are person outside of this place, I am sharing these things with you.”* (Mankumari, early thirties, urban, love marriage, husband in Qatar)

Health posts served as sites of conversation about family planning use during migration.

One woman had heard at the health post about others using family planning while their husbands were away.

*I: “What do you think about using contraception while your husband is away?”  
P: “We have heard that women use contraception while their husband is away... We hear those things at the health post and in the news. But I haven’t used any contraceptives while my husband has been away.”* (Sakuntala, early twenties, urban, arranged marriage, husband in Qatar)

These reactions must be understood in conjunction with the associations made between contraceptive use in a spouse’s absence and infidelity. While Sakuntala, above, did not draw an explicit connection between the stories she had heard about other women and infidelity, she quickly disassociated herself from these women. Most participants, living in both rural and urban areas, who reported having heard about others using a family planning method when their spouses were away perceived such practices as being not “good” or “loyal.” Many women’s comments reflected the suspicions that women faced if they used while their husbands were migrating, making comments like “they may be involved in relationships with other men.” Others drew on stories or rumors they had heard to explain the challenges they face in their own communities.

*“I detest such wives who spent money randomly on unnecessary things...I see it on Facebook and in the newspaper. They lie and have fun with their boyfriends. Such women have affected us... Other people consider us wrong. Her husband will send her lots of money and she will enjoy with that very money. Here, that is*

*not how it is. Here, many of them are abroad. But, none of them have done such bad things. I have heard that one woman in [a nearby village] is having an affair with a soldier while her husband is abroad. She uses the money sent by her husband to shop for her boyfriend. I was disgusted after hearing about it. It is hard-earned money.”* (Ranjana, mid-twenties, urban, love marriage, husband in Dubai)

Ranjana distanced herself and her community from women who have relations with other men and, in her opinion, inappropriately spent remittance money in ways that did not benefit the household or children. Ranjana perceived these rumors, perpetuated through social media and in the news, to have tangible effects on her life as well. Her comment that “other people consider us wrong” illustrated how the rumors about the practices of some women “left behind” were often ascribed to all. This led women to be concerned about their reputations. As Mankumari explained:

*“Why should I use it if my husband is not here? I can’t think of having any relationships with other men. It’s a bad thing to think about that. We have to take care of our status in the society. You never know who your enemy is. People can say bad things about you, but here no one can dare to say bad things about me.”* (Mankumari, early thirties, urban, love marriage, husband in Qatar)

Women routinely distanced themselves from stories or rumors of women who used contraceptive methods while their husbands were away. According to most women interviewed, such practices were associated with infidelity or lack of loyalty. Participants often voiced concerns over how their lives and reputations were placed under increased surveillance, exacerbated by rumors and news stories, in the absence of their husbands.

## Discussion

Through an exploration of women’s reproductive lives, this manuscript illustrated how the global economic factors that have led to widespread labor migration in Nepal are implicated in the intimate, daily experiences of non-migrant Nepali women (Wilson,



2004). A husband's labor migration was understood by participants to be a social practice (Poertner et al., 2011) that was necessary to provide and care for their children, thus reflecting the intrinsic relationship between household economics, migration, and reproductive work (Sørensen & Vammen, 2014). Women described multiple mechanisms through which their husbands' migration was related to their reproductive lives. A husband's labor migration reinforced women's responsibilities over reproductive work like childbearing and childrearing, played an important role in the contraceptive method used and when it was adopted, and intersected with social pressures and norms to affect women's reproductive practices.

Through multiple avenues, women's lives were affected by the "burden" of reproduction. Migration appeared to exacerbate associations often made between womanhood and reproduction or motherhood (Ginsburg, 1995; Ginsburg & Rapp, 1991). With a migrating spouse, the responsibility of taking care of a child would fall on "them only," which led some women to want to use a contraceptive method when their husbands returned. In this way, global trajectories of migration, which are (although shifting) traditionally dominated by men in Nepal, further relegated reproduction to the realm of women "left behind" in Dhading district. The limited employment opportunities that lead Nepali men to migrate for work and send remittances equivalent to a large portion of the country's GDP (Ratha et al., 2016) therefore have a tangible effect on the construction of gendered reproductive roles and responsibilities of their non-migrant spouses.

Spouses' migration and transient presence in households influenced women's understandings of what family planning methods were appropriate and when to use them.

These findings support previous work highlighting the temporal effect of migration on fertility (Kulu & Milewski, 2007; Ortensi, 2015). A spouse's labor migration is therefore a recurrent experience with implications for women's reproductive lives. For women whose husbands migrate for work for different periods of time, contraceptive use dynamics – including uptake and discontinuation, method switching, and method failure (Gubhaju, 2009) – are made all the more salient and relevant, particularly in a context wherein the fidelity and reputations of women “left behind” may be under surveillance and suspicion (Rasmussen, 2016, May 3).

Women highlighted the influence of widespread narratives of infidelity on their daily lives (Rasmussen, 2016, May 3). Such suspicions or stories of other women's affairs affected how they were seen and treated as well as their contraceptive use dynamics. Such associations between infidelity and women “left behind” have also been documented in other contexts (Hannaford, 2015; Hirsch, 2009; Ochoa-Marín et al., 2011). As Hannaford (2015) so eloquently wrote, “As in many other countries dealing with rapid new rates of migration, women's bodies become public sites of moral panic” (Hannaford, 2015, p. 49). In this study, women distanced themselves from others who used family planning when their husbands were gone to dissipate suspicions of infidelity during their partners' absences. However, despite anecdotes and narratives disseminated in newspapers, at health posts, and in community discussions, there is minimal evidence from Nepal that women with migrant spouses either 1) engage more frequently in extra-marital relations or 2) experience increased rates of unintended pregnancies or abortions in the absence of their spouses (CREHPA, 2012; Uprety et al., 2016).

### *Implications for research and practice*

This manuscript uses intimate economies (Wilson, 2004) to frame a public health understanding of the reproductive lives of women with migrant spouses in Nepal. Future efforts should continue to incorporate intimate economies into public health research and practice. This approach would allow researchers the opportunity to complicate existing understandings of sexual and reproductive health by acknowledging how intimate relationships are the product of transnational connections that both affect and are affected by global economic relations.

This paper strengthens the limited evidence on contraceptive use dynamics during and following a spouse's labor migration (CREHPA, 2012; Uprety et al., 2016). These findings suggest that metrics like the contraceptive prevalence rate (CPR) may ignore the lived experiences of women whose husbands are absent and who do not necessarily need or want to use a family planning method (Shrestha et al., 2012). Future research should therefore investigate other metrics of family planning utilization that acknowledge the role of spousal labor migration in women's uptake and discontinuation patterns. Future research is also urgently needed on the relationship between spousal labor migration and unintended pregnancies and abortions in Nepal, not only to address prevailing narratives about women's infidelity but also to identify unmet service needs.

Family planning policies have recently called for increased attention to labor migration (MOHP, 2015). Programs addressing the sexual and reproductive health of migrants and their non-migrating spouses in Nepal currently focus on HIV and other sexual risks (Uprety et al., 2016), but few actively integrate labor migration and spousal separation into family planning activities (HC3, 2014; Uprety et al., 2016). Programs and

health providers in Nepal would benefit from integrating migration into the design of family planning materials. If women are not having sexual relations, family planning messages may need to be shifted to discuss women's future plans for contraceptive use rather than current practices.

A husband's migration does not necessarily affect only whether one uses or not, but also the type of method sought and when women adopt, re-adopt, or discontinue use. Demand-side programming could be complemented by service-level interventions – a priority for current family planning policy in Nepal (MOHP, 2015) – that address issues of confidentiality and improve providers' knowledge of the reproductive questions, gaps in knowledge, and societal challenges faced by women with migrant spouses. The failure to acknowledge the prominent connection made between infidelity and women “left behind” leads national family planning efforts in Nepal to place women in an impossible position: they are expected to be both using and not using contraception to fulfill the expectations of the health sector and their communities. Researchers and practitioners must commit to designing family planning programs that 1) critically investigate these issues, 2) examine how they develop, and 3) do not perpetuate such relationships in efforts to improve family planning access and utilization.

### *Strengths and limitations*

This qualitative study explored key conceptual themes across a purposively sampled group of women's experiences to examine the potential applicability or transferability, rather than generalizability (Green & Thorogood, 2013), of these concepts to future research. Conducting multiple interviews with each participant improved

rapport and addressed gaps in understanding. Researchers came from outside the communities where interviews were performed, which may have affected what and how participants communicated with them during interviews. For Mankumari, who said “Since you are person outside of this place, I am sharing these things with you,” (Mankumari, Early thirties, urban, love marriage, husband in Qatar), it was perhaps easier to discuss sensitive topics like extra-marital relations with people from outside the community. However, it is possible that women were also less likely to share other attitudes or aspects of their lives with the research team for the same reason. These differences illustrate the pivotal role of the researcher in the qualitative research process and highlight the study team’s constructivist view of data collection and knowledge creation (Boychuk Duchscher & Morgan, 2004). FCHVs and local peer facilitators working with the Nepal HC3 Project acted as key informants and provided access and introductions to community members to facilitate rapport building, but their roles in recruitment also influenced the types of women who were interviewed in this study.

Purposive sampling for variation in spousal migration experiences allowed an investigation of the effects of such diverse experiences on the lives of women “left behind,” rather than draw assumptions about a monolithic “labor migration experience” that does not exist. Labor migration experience is complicated by destination of current migration (Figure 4.1) and the complex trajectories that men follow over time. Since participants were only interviewed at two time points, a detailed investigation into the effects of such complex trajectories on women’s lives was not possible. Future qualitative and quantitative research is needed to examine women’s experiences and the effects of different migration trajectories over time on the couple and the larger household.

## Conclusion

Qualitative interviews with women whose husbands are or have recently returned from migrating for work reflected how the lack of economic opportunities and the need to provide for, educate, and improve the futures of one's children – together which lead men to travel for work – affect women's reproductive responsibilities and practices. Labor migration patterns therefore make their way into the intimate and reproductive lives of women "left behind." Among the women interviewed in Dhading district, a husband's labor migration (re)defines reproductive responsibilities, affects what method and when women use family planning, and leads to increased surveillance over these women's reproductive lives due to suspicions of infidelity. Further in-depth research on the effect of labor migration on women's family planning practices and reproductive health outcomes is necessary. While policies have begun to acknowledge the relevance of migration to family planning programs, multi-level interventions that recognize the relevance of spousal labor migration to women's reproductive lives will be invaluable in Nepal and other settings where labor migration is actively restructuring households.

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## **Chapter Five: Manuscript #2**

### **Intimate relations across borders: The role of labor migration in restructuring partner communication about family planning in the central hill region of Nepal**

#### **Abstract**

An exploration of transnational partner communication between women and their migrating spouses is essential for understanding both the transnational social fields of Nepali women “left behind” and the reproductive health implications of spousal labor migration for non-migrant wives in Nepal. Drawing on data gathered from qualitative interviews with twenty women interviewed twice in spring 2016, this study 1) documented the nature and content of women’s interactions with their absent spouses and 2) assessed the extent to which women talked with their migrant spouses about reproductive work such as childbearing, family planning, and childrearing. Women’s frequent conversations with their migrant husbands were routinely organized around their husbands’ schedules and focused on their children’s needs and expenses, while other intimate or household topics often were not prioritized. Communication about family planning and future childbearing was often delayed until the husband’s return. Ultimately, these findings illustrated how labor migration may structure intimate relationships and partner communication about reproductive work in Nepal. In an increasingly mobile world, researchers must consider the role of spousal labor migration

in how couples interact. The lack or delay of partner communication about childbearing or contraceptive use could be a point of intervention for gender transformative family planning programs.

## Background

### *Partner communication and women's reproductive health*

Partner communication is strongly related to women's reproductive health outcomes (Bawah, 2002; Malhotra et al., 2002; Mosha et al., 2013; Wegs et al., 2016). Partner communication and shared decision-making about household, healthcare, and family planning are associated with greater influence of women's own fertility preferences on contraceptive use, increased contraceptive use, reduced unintended pregnancy, reduced discontinuation of use over time, and increased maternal healthcare seeking (Exavery et al., 2014; Furuta & Salway, 2006; Hameed et al., 2014; Jennings & Pierotti, 2016; Link, 2011; Pratley, 2016; Yue et al., 2010). Such communication has been shown to affect men's opposition to and involvement in family planning decisions and care-seeking (Kabagenyi et al., 2014; Mosha et al., 2013) and has led public health programs to focus on partner communication, particularly communication about family planning, as a key predictor of contraceptive use (Hartmann et al., 2012; Kraft et al., 2014; Wegs et al., 2016).

Partner communication about family planning varies by women's social locations and status (Furuta & Salway, 2006; Upadhyay et al., 2014). Studies in Nepal have found that partner communication about family planning varied by caste/ethnic group, age, wealth, and educational level (Devkota, 1999; Sharan & Valente, 2002; Yue et al., 2010). Income has also been shown to be positively associated with partner communication (Bhatta, 2014). Furthermore, gendered power inequities within households have been shown to play major roles in partner communication dynamics (Blanc, 2001; Gipson &

Hindin, 2007). In fact, a recent study from Nepal found that intimate partner violence was negatively associated with partner communication (Bhatta, 2014).

Few public health studies have focused on the relationship between spousal communication about reproductive health topics and another important aspect of women's social locations: spousal labor migration experience. Some studies exploring this issue in other regions have shown conflicting evidence on the effect of a spouse's absence on spousal communication about sexual health topics like sexually transmitted infections or HIV risk (Agadjanian & Markosyan, 2016; Sevoyan & Agadjanian, 2015). In contrast, social scientists have focused on the extent to which spousal absence or migration affects intimate relationships and partner communication more generally.

### *Transnational communication and migration*

For transnational migrants, technological advances in information and communications technologies (ICTs) facilitate transnational communication (Vertovec, 2004) that can establish, maintain, or restructure intimate relationships with partners, children, or other family members (Horst, 2006; Kang, 2012; Madianou & Miller, 2011; Nedelcu & Wyss, 2016; Pajnik, 2015; Parrenas, 2005; Parrenas, 2014; Platt et al., 2016; Walsh, 2009). Such technological advances have transformed migrant couples' transnational social fields, with increased opportunity and perhaps expectations to remain connected when one person is migrating (Hoang & Yeoh, 2015; Horst, 2006). While such technology can have positive effects for migrants and their families because it enables them to talk more frequently, there are also associated burdens (Horst, 2006). Increased cost, potential for surveillance over women's actions from migrating spouses, and

expectations of fulfilling traditional gender roles have all been related to the increased spousal communication that technological advances have facilitated (Collins, 2009; Hannaford, 2015; Horst, 2006; Nedelcu & Wyss, 2016; Platt et al., 2016).

### *Migration and the redefinition of intimacy through transnational communication*

Migration itself may restructure the relationships that migrants have with their families. Societal biases towards “co-present” families put pressure on migrants and their families to meet the expectations of intimacy established by “co-present” or cohabitating nuclear families, even though intimacy may mean something quite different in their particular context (Parrenas, 2014). Researchers have highlighted the effects of these expectations for female migrants in particular, who are often responsible for ensuring and maintaining intimacy through their engagement in reproductive work such as childbearing, family planning, childrearing, and caregiving (Madianou & Miller, 2011; Parrenas, 2005; Parrenas, 2014; Platt et al., 2016). While for “co-present” families, intimacy is considered the product of spontaneity, routine communication plays an essential role in how migrants establish intimacy and develop relationships with their families “left behind” (Nedelcu & Wyss, 2016; Parrenas, 2014). Some research among transnational families has emphasized how transnational communication reaffirms migrant women’s responsibility over reproductive work by reinforcing their caregiving roles (Kang, 2012; Parrenas, 2005; Parrenas, 2014; Platt et al., 2016). At the same time, gendered expectations of men and women are both challenged and perpetuated through migration and the types of communication expected (Chereni, 2015; Hoang & Yeoh,



2011; Parrenas, 2005; Parrenas, 2014; Sørensen & Vammen, 2014). Limited research has focused exclusively on the experiences of women “left behind” as agents in their experience of migration (Hannaford, 2015).

### *The Nepali context*

In 2011, nearly one in three couples were living separately at the time of the survey (MOHP et al., 2012). Migration has grown substantially in recent decades in Nepal as a result of 1) mobility within Nepal, 2) internal migration to urban areas and away from hill regions, and 3) international travel to India as well as more distant destinations for work (Gurung, 2001; Poertner et al., 2011; Regmi, 2001; Sunam, 2014; Toffin, 1978; Tulachan, 2001). In 2013–2014, more than 490,000 international labor permits were issued to men migrating to countries including Malaysia, Saudi Arabia, and Qatar (GON, 2014; Ratha et al., 2016). Due to informal labor migration to countries like India – where permits and visas are not necessary to enter the country and work – the total number of labor migrants is estimated to be significantly higher (GON, 2014).

Despite the number of men migrating for work within and out of Nepal, little research has explored the role of transnational communication in reinforcing male migrants’ connections with their places of origin (Chapagain, 2015; Gartaula et al., 2012; Kunreuther, 2006; Poertner et al., 2011). One study explored a radio program that connected the Nepali diaspora with listeners in Kathmandu (Kunreuther, 2006). Other studies have highlighted how women consult with their migrating husbands prior to making important household decisions (Chapagain, 2015) and the role of ICTs in facilitating connections between migrants and their villages of origin (Gartaula et al.,

2012; Poertner et al., 2011). One recent case study on the well-being of four women “left behind” in Nepal emphasized that mobile phones allowed couples to maintain relationships, bond, and communicate about personal topics in ways that were not previously possible (Gartaula et al., 2012). In a recent qualitative study with labor migrants in Nepal on family planning service utilization, researchers *briefly* discussed partner communication about contraception (CREHPA, 2012). CREHPA (2012) explained that couples communicated about family planning during periods of separation, despite low use. However, the study did not discuss in depth how these couples communicated or the nature and content of these conversations. Further research is needed to build on this preliminary investigation to inform future programs working with labor migrants and their partners in Nepal (CREHPA, 2012; Shrestha et al., 2012).

### *Conceptual framework and aims*

Transnational communication is focused on how migrants maintain, construct, and restructure transnational social fields. Transnational social fields – structured by and influencing social locations such as gender, sexuality, household position, or caste/ethnic group – are developed and maintained through communication and social interactions that can span borders (Glick-Schiller et al., 1992; Hirsch, 2003; Hirsch, 2007; Hoang & Yeoh, 2015; Horst, 2006; Pessar & Mahler, 2003). As Levitt & Glick-Schiller (2004) wrote:

*“The concept of social fields is a powerful tool for conceptualizing the potential array of social relations linking those who move and those who stay behind. It takes us beyond the direct experience of migration into domains of interaction where individuals who do not move themselves maintain social relations across borders through various forms of communication (p. 1009).”*

The construction and transformation of intimate, close relationships takes place, therefore, in both sending and receiving locations and within transnational social fields that span multiple locations. Communication between the migrant him/herself and individuals “left behind” is a concrete way to explore the transnational social fields that women “left behind” navigate in their daily lives in Nepal. This manuscript focuses on communication about “reproductive work,” a term used here to refer to responsibilities and work outside of the formal labor market – considered “productive work” and historically the provenance of men – and frequently allocated or relegated to women (Chodorow, 1999; Martin, 2001; Pearson, 2000; Smith, 2013). Reproductive work is used here to refer to both childrearing and childbearing-related topics including family planning.

Although studies have looked at labor migration and transnational communication in other settings, often exploring the effects of such communication on women’s roles as caregivers (e.g. Parrenas, 2014), only one study has look at communication about reproductive topics like using a family planning method among labor migrant couples in Nepal (CREHPA, 2012). Further exploration of transnational communication and its implications for women’s reproductive work – including childrearing and family planning – is urgently needed, since disruptions or transformations in spousal communication about such topics may have important implications for women’s reproductive health outcomes. This study therefore aimed to 1) document the nature and content of women’s interactions with their absent spouses, and 2) examine whether and how women discuss reproductive work (e.g. childrearing or family planning) with their labor migrant spouses.

## Methods

This study draws on qualitative data gathered from semi-structured interviews performed in spring 2016 with 20 women whose husbands had labor migration experience. Women from Dhading district, located in the central hill region of Nepal, were interviewed by a Nepali woman with qualitative research experience trained in public health and women's studies. Participants were actively recruited with support from the Nepal Health Communication Capacity Collaborative (HC3) Project team in Dhading (HC3, 2014) by approaching eligible women identified by HC3 peer facilitators and female community health volunteers (FCHVs) in select village development committee (VDC) areas. Women were eligible for the study if they were currently married and of reproductive age, lived in Dhading district, and had a labor migrant spouse. Labor migration experience was defined as having traveled for work away from home, either internally or internationally, for at least three consecutive months in the past five years. The Johns Hopkins Bloomberg School of Public Health (JHSPH)'s ethical review board and the Nepal Health Research Council (NHRC) approved this study.

Women were selected to participate in interviews to gather a variety of labor migration experiences, including differences by destination, duration, and migration history. Women's husbands were either currently away or had recently returned (within the past six months). Women were recruited from both rural and urban areas nearby 1) the district headquarters and 2) the highway that cuts through the southern portion of Dhading district.

Participants were interviewed twice (90% follow-up) to build rapport between the Nepali interviewer and the female participants and to fill gaps in understanding

(Reinharz, 1992). The interview guide focused on how a husband's labor migration was implicated in women's household functioning, household responsibilities and duties, and family planning practices. Integral to the guide were questions not only on women's reproductive lives, but also important aspects of gender dynamics within the household including women's labor, women's interactions with their spouses, and participation in decision-making following spousal migration. All interviews were conducted in Nepali, audio-recorded, transcribed, and then translated into English for analysis. Follow-up interviews were linked with the first round of interviews for analysis.

### *Analysis process*

A multinational team of Nepali and American researchers analyzed the qualitative data. The analysis process was informed by the framework method for qualitative research in the health sciences (Gale et al., 2013; Srivastava & Thomson, 2009). The framework method uses an analysis process that moves from transcription to the development and refinement of a coding framework and includes the use of matrices to compare themes within and across participants (Gale et al., 2013; Srivastava & Thomson, 2009). In the application of the framework method, both deductive and inductive methods were used to develop and apply the coding framework and perform a thematic analysis of the interview transcripts.

Members of the research team each independently reviewed a randomly selected portion of transcripts (n=5) and constructed preliminary lists of relevant concepts to inform the coding framework (Gale et al., 2013). The coding framework emerged through discussions with the research team and drew from these preliminary drafts and a

*priori* constructs from research on labor migration. A randomly selected transcript was independently coded by three members of the research team, with necessary revisions made to the coding framework following group discussion. The remaining transcripts were then coded by the first author, with 50% double-coded for consistency by the third author. All discrepancies in coding were resolved through consensus. ATLAS.ti was used for coding (ATLAS/ti, 2015). Quotations associated with each code were reviewed, with comparisons made within and between transcripts (Boeije, 2002; Gale et al., 2013). Atlas.ti (2015) was used to construct data matrices for this rigorous comparative analysis approach informed by the framework method (Gale et al., 2013).

To ensure the trustworthiness of the data collection and analysis process and the results presented here, several approaches were taken to address research quality during the study design, data collection, and analysis phases (Denzin & Lincoln, 2000; Green & Thorogood, 2013; Shenton, 2004). These measures included the use of feedback and debriefing sessions, the provision of detailed descriptions of methods and analytical processes, the use of constant comparative techniques, and the drafting of memos highlighting the authors' perspectives and positionality in relation to the research project (Denzin & Lincoln, 2000; Green & Thorogood, 2013; Shenton, 2004).

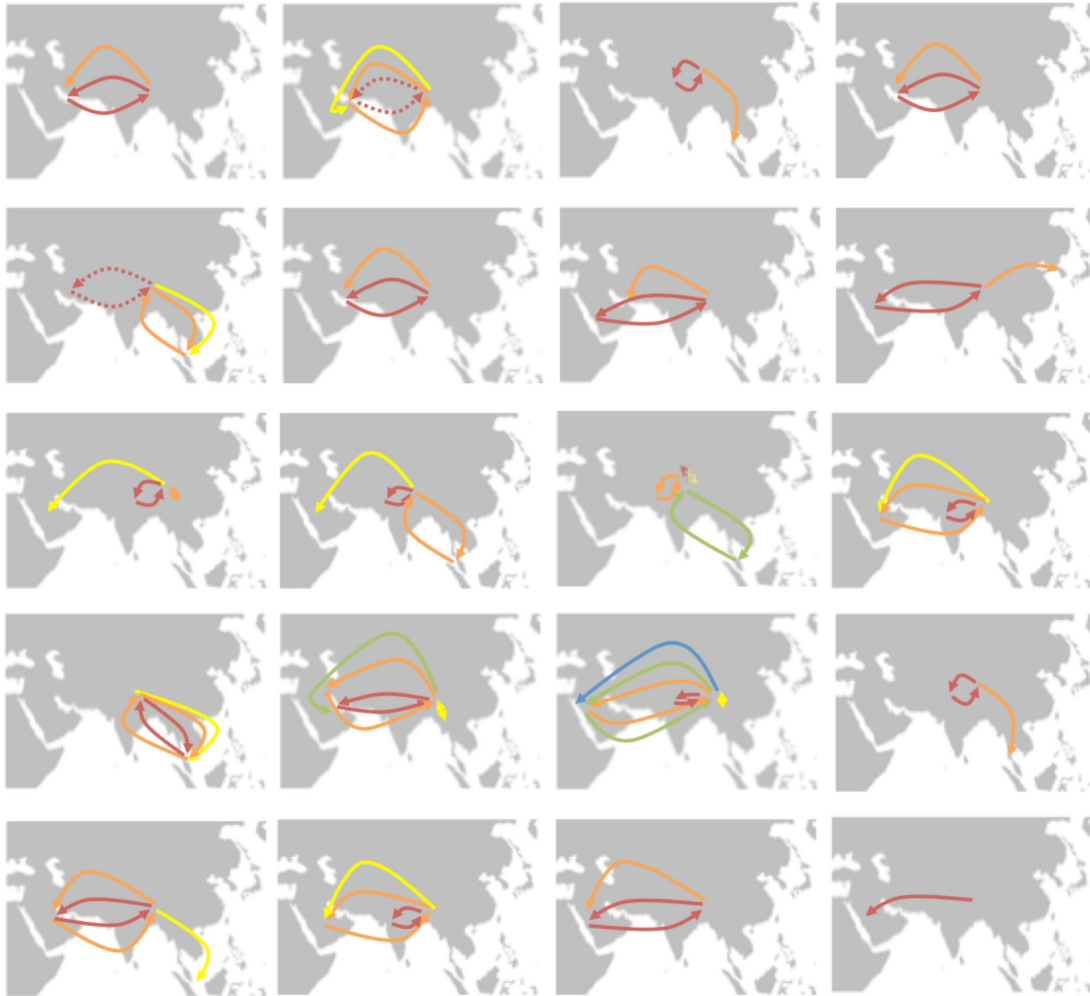
## Results

### *Study sample: Women's social locations and spousal migration experience*

Participants were of reproductive age (range: 20–42 years), and approximately half lived in joint families. Nearly half of the participants had “love,” not arranged, marriages. Women were from a variety of caste/ethnic groups, with Brahmin, Chhetri,

and Dalit the most common caste/ethnic groups represented. Women from indigenous groups, including Newars, Magars, or Rai, were also interviewed.

Figure 5.1 depicts the migration trajectories of participants' husbands. Evident in the diversity of migration trajectories are several patterns. Women's husbands traveled to internal and international destinations similar to national trends (GON, 2014; Ratha et al., 2016). International destinations included India, Persian Gulf countries (e.g. Qatar, United Arab Emirates, Kuwait, or Saudi Arabia), Malaysia, or South Korea. Men traveled repeatedly to the same locations (e.g. multiple trips to Qatar or Malaysia). Migration histories often began with travel to more proximate locations, including to other areas in Nepal or India, and led to labor migration to locations farther away. During interviews, women described communicating with their migrant spouses, including how such conversations were incorporated into their daily lives and what they discussed. Women also shed light on whether family planning figured in to such conversations. These themes are discussed in the following sections.



***Figure 5.1. Husbands' migration trajectories as reported by women interviewed.*** Short arrows (appear as diamonds) signify internal migration within Nepal. Order of destinations signified by color: red (first), orange (second), yellow (third), green (fourth), and blue (fifth). Dotted lines signify migration trips where destinations were not disclosed (Note: The location implied by these dotted lines, the Persian Gulf, was randomly chosen and not indicative of migration destination).



*Communication technologies: Facilitating transnational conversations and implications for women's daily lives*

Cell phones were ubiquitous among women interviewed. As one woman expressed, "...even [my] mother-in-law has [a cell phone]. Everyone carries one now." (Upsana,<sup>27</sup> late twenties, urban, arranged marriage, husband in Malaysia). Most of these cell phones were connected to the Internet, which meant that women had multiple ways to contact their husbands: by phone, Skype, or other mobile applications like Viber, Imo, Whatsapp, or Facebook. Facebook and Viber were most commonly identified by name, and if women had access to Internet, they would regularly send messages to their husbands and talk on the phone. The availability of cell phones and Internet access marked, for several women, a change in how often they could talk with their spouses. Kanchhi recounted a time early in her marriage when there was no mobile phone service in her village.

*"He went to Dubai after 3 months of our marriage. He came home after 3 years. There were no mobile phones at that time. We had to go to [a nearby village] to make a call. He used to call once every 7 to 8 months."* (Kanchhi, late twenties, rural, arranged marriage, husband in Qatar)

Women highlighted how much more frequently they could talk with their migrant husbands now. Most women described talking with them daily, or even multiple times per day, although other women reported speaking once every couple of days or less than once a week. The frequency of conversations was affected by the husband's availability. Multiple women emphasized that their husbands' schedules controlled when and whether they could connect, with restrictions on husbands' time limiting when they spoke.

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<sup>27</sup> Note: Pseudonyms were used to protect the confidentiality of participants.

*“We talk once every two to three days. He is busy at work. He calls me in the evening during meal time and asks me about our daughter, my health condition.”*  
(Kamala, early twenties, rural, love marriage, husband in Qatar)

A husband’s availability, often at meal times or during breaks, affected how women spent their time and determined when couples spoke. For example, Ranjana described how her conversations with her husband fit into her daily activities:

*“...I wake up in the morning, drink tea, cook the breakfast, then I need to get ready to go to the school. I go to the school and spend the whole day with the children. Shortly after, the lunch break happens. My husband also gets an off period during my lunch break. We have conversations over the lunch break, and after the break is over I teach the students. Then, school ends for the day. I take rest for some time, cook dinner, send a message to my husband, and I sleep.”*  
(Ranjana, mid-twenties, urban, love marriage, husband in Dubai)

If they were unable to connect, Ranjana’s husband would often repeatedly attempt to reach her.

*“...He calls me on the phone right away when we don’t have conversations on messenger. Now, we talk through messenger mostly. If there is no Internet access, he calls on the phone right away. I live in such a difficult place. So, he keeps on calling time and again.”* (Ranjana, mid-twenties, urban, love marriage, husband in Dubai)

Other women shared similar stories of their husbands calling repeatedly if they were unable to answer the phone.

When asked to describe their typical days, most women highlighted how conversations with their spouses were important components of their days. Yet, for others, such conversations were much less consistent. In addition to their husbands’ availability, external factors – including network errors, lack of money, or poor Internet connections as discussed by Ranjana above – also served to restrict when women talked with their husbands.

### *Conversations with absent spouses: Power dynamics and the prioritization of children's needs*

Women's conversations with their migrating husbands covered a range of topics focused on the household and family, including household responsibilities, children, health and wellness, mobility, finances, and agriculture. Although women most commonly mentioned talking about child-related topics, conversations about children were not distinct from discussions about other issues; children were routinely evoked in descriptions of conversations about household responsibilities (e.g. cooking for and feeding children), health and wellness (e.g. children's illnesses), mobility (e.g. challenges to mobility due to childcare responsibilities), finances (e.g. children's education or daily needs), and agriculture (e.g. prioritizing childcare over agricultural work). Women did not frequently mention conversations about family planning with their migrating spouses.

Women recounted conversations with their spouses by repeating the recommendations or advice that their husbands gave them. These conversations were frequently framed as, "He tells me," or "He says."

*"... We discuss raising children well, keeping them in line, their expenses and such... He tells me to focus on raising the children only, not agriculture and other work." (Janaki, early forties, rural, arranged marriage, husband in Dubai)*

The priority placed on children during these conversations was clear. As this quotation from Janaki demonstrates, this advice was often focused on childcare and children's expenses. Women who engaged in agricultural work often mentioned that their husbands advised them to prioritize childcare over such work.

Some women spoke with their husbands about topics both big and small. As women recounted these conversations, they emphasized that such interactions consisted

of their spouses telling them to do certain things like “eat and sleep on time,” “visit family,” or “eat meat.” The following quotation from Radha is one such example:

*“He tells me to look after our child properly. He also tells me to eat properly and take care of his parents.”* (Radha, early twenties, rural, love marriage, husband in Saudi Arabia)

Some women described “doing whatever he [the husband] says.” Mankumari, whose husband was quite involved in her daily activities while he was away, said that her husband’s consent was essential. She made sure to get his consent due to a fear of abandonment if she were to challenge her roles as a woman and wife by doing something on her own.

*I: “What kinds of things do you decide on without your husband?”*

*P: “Even though my husband is away, I don’t make any decisions without consent of my husband. For example; if I want to go and watch movies or take some lessons about something to develop my skills, I get consent from my husband. I do everything with the consent of my husband. I don’t do anything on my own because being a woman and someone’s wife if I do something without asking him and then, if he becomes angry and tells us to leave him and go away then, where will I go. I have to think about that.”* (Mankumari, early thirties, urban, love marriage, husband in Qatar)

In contrast, some women shared stories of ignoring or disregarding their husbands’ instructions and making decisions without them, such as whether to visit family members or engage in agricultural work. For other women, as shown in the quotation below, everyday responsibilities and agriculture simply did not take priority in conversations with their spouses.

*I: “Does your husband say anything about farming?”*

*P: “He doesn’t. He is not concerned about farming. He says do [it] if you can. [Our] daughter is small so... I work and haven’t left [farming], but let’s see.”*

*I: “Do you discuss children’s issues and household work?”*

*P: “If there is something urgent then I ask him. Otherwise I do it myself.”*  
(Rabina, early twenties, rural, love marriage, husband in Malaysia)

More urgent or important matters, particularly conversations about children and their needs, took precedence during interactions on the phone or over the Internet. Discussions about everyday topics or daily life were, for some women, unnecessary to discuss with their husbands. As one woman said, “Why would he ask about such petty things?” (Meera, early thirties, rural, arranged marriage, husband in Malaysia). Kanchhi also explained how she asked her husband only about crucial or important decisions and otherwise made mutual decisions with her mother-in-law.

*“I stay with my mother-in-law. So, everything we do is based on mutual discussion. If there is anything crucial, we ask my husband. We do the rest of the tasks by ourselves.”* (Kanchhi, late twenties, rural, arranged marriage, husband in Qatar)

Women also highlighted how their husbands’ migration restructured intimate relationships by reducing the support, both instrumental and emotional, that they received from their husbands while away. Radha explains below the concrete ways in which her husband’s absence affected the support she felt she had. Not only was it due to distance, but also because she did not share her emotions with him while he was away.

*P: “I feel sad. Separation is obviously different than being together.”*

*I: “...What are the things you are worried about?”*

*P: “I am worried about my daughter. My husband is not with me, what if she gets sick? I also worry about somebody saying something bad to me. My husband is not with me to defend me.”*

*I: “What does your husband say about it?”*

*P: “What would he say? He says that he has the responsibility of earning for the family and looking after his daughter, so we can't stay together. He consoles me like that.*

*I: “What else does he say to console you?”*

*P: “He does not say much. Maybe because I don't complain a lot. I feel that it is no use sharing a lot of things with him since he is far from his home.”* (Radha, early twenties, rural, love marriage, husband in Saudi Arabia)

As Radha and other participants explained, a spouse’s migration affected the topics that took priority as women and their husbands navigated relationships across borders.

Transnational communication often focused on children's needs and childrearing, rather than other intimate or household topics. Such communication facilitated men's involvement in some women's daily lives, while other women experienced greater autonomy in their husbands' absences.

### *The delay of partner communication about future children or family planning*

Within the context of conversations focused on children and childrearing, some women described communicating with their husbands about family planning intentions. Such communication included using contraceptive methods and whether women or their spouses wanted another child. This section explores how spousal labor migration was implicated in these conversations.

There were more women who either did not discuss or delayed family planning-related conversations than women who said that they had talked about these matters with their migrating spouses. For most women, migration played a major, albeit complex, role in whether such discussions occurred. One woman linked her decision to start using a hormonal form of contraception a week before her husband's return to conversations with him prior to his arrival. Another woman described discussions she had with her husband before he left the last time about whether to keep her intrauterine device (IUD) or remove it; ultimately, they decided to keep it. In contrast, most women – like Santi below – responded overtly that they did not discuss family planning with their non-resident husbands.

*P: "We have two children so, we won't have another child."*

*I: "Do you think you will use a contraceptive method in the future?"*

*P: "I don't know about that now. We will decide when he comes back. We don't talk on the phone about that." (Santi, mid-thirties, rural, arranged marriage, Husband in Qatar)*

Duration of current migration was a common reason for not discussing family planning.

*"We have sufficient time, we have not thought about such things. It's only been ten months, he won't come before three years." (Rabina, early twenties, rural, love marriage, husband in Malaysia)*

As Rabina communicated, the length of her husband's absence explained why such topics had not been broached.

Most women said that they would discuss having another child, whether to use a contraceptive method, or what method to use *after* their husbands' return.

*"My son is 5 years old. So, I think it is an appropriate time, however, I have to discuss with my husband about having the next child after he comes here. I told him that I want another baby when he was here on leave, but he did not agree to that... I have also thought about it [using a contraceptive method] ...and I will obviously discuss about it with my husband after he returns." (Kanchhi, late twenties, rural, arranged marriage, husband in Qatar)*

While the duration of the husband's stay abroad was one reason for not talking about family planning prior to spousal return, men's busy work schedules also functioned as barriers to having such conversations. When they were able to connect on the phone, they discussed their young children rather than any aspirations for future children.

*I: "Do you talk to your husband about giving birth to another child?"*

*P: "We used to talk about having another child, but not anymore."*

*I: "What did you use to talk about previously?"*

*P: "We used to discuss having another [child] once he comes back, either son or a daughter, but we do not talk about it anymore."*

*I: "Now will you talk about it before or after his arrival?"*

*P: "After he comes back. He does his duty all night and sleeps all day. So, there is hardly any time for us to talk. Whenever we get a chance to talk, it is about our daughter. I send him her videos and photographs. He is fond of her." (Sakuntala, early twenties, urban, arranged marriage, husband in Qatar)*

For Sakuntala and others, conversations usually revolved around her current child's well-being and the status of the household. Rather than discussing future children or contraceptive method choice, women noted that the limited time available for conversation meant that contemporary issues, particularly those related to current children, were prioritized.

*I: "Do you discuss with your husband about using family planning contraceptives?"*

*P: "No, we didn't talk about it before either. Once he returns we will definitely have another child. When we talk on the phone he asks about our daughter. 'Is she fine or not?' That's it." (Sarita, early twenties, urban, arranged marriage, husband in Saudi Arabia)*

Ultimately, a husband's migration played an important role not only in whether spouses communicated about family planning, but also when such communication occurred. For some, the duration of a husband's absence meant that they felt no need to discuss future children or contraceptive methods right now. For others, conversations focused on current household issues and children rather than aspirations or intentions for the future.<sup>28</sup>

## Discussion

Partner interactions shift and are restructured within the context of spousal labor migration in Nepal. This study reinforced the idea that transnational connections between sending and receiving locations are actively constructed and reproduced through

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<sup>28</sup> These migration-related factors intersected with other aspects of women's lives – including existing disagreements between spouses about the use of contraceptive methods – that may also have contributed to whether women reported communicating about family planning with their spouses while they were away. Although not the focus of this manuscript, it is important to note that aspects of women's lives unrelated to migration also affected whether women talked with their partner about family planning. Differences of opinion about contraception were described by Meera, for example, who in response to a question asking if she talked about family planning with her husband said, "We don't. If asked him, he would say to stop using it" (Meera, early thirties, rural, arranged marriage, husband in Malaysia). Although mentioned by only a few participants, spousal disagreement about contraception was one example of the multiple factors that intersected with spousal labor migration to influence whether women communicated with their husbands about family planning.



communication (Glick-Schiller et al., 1992; Hirsch, 2003; Hirsch, 2007). Labor migration is therefore experienced both by those who migrate and the women who remain in Nepal. Shifts in how women interacted with their spouses, such as the establishment of conversation routines, marked a clear way that intimate relationships may differ for couples separated by labor migration (Hoang & Yeoh, 2015; Nedelcu & Wyss, 2016; Parrenas, 2005; Parrenas, 2014). These findings support and extend previous research on transnational couples and families, which are dominated by investigations of migrants' experiences and familial changes as a whole rather than experiences of women "left behind," by exploring how women's daily lives and relationships shift as their spouses migrate (Horst, 2006; Kang, 2012; Madianou & Miller, 2011; Nedelcu & Wyss, 2016; Pajnik, 2015; Parrenas, 2005; Parrenas, 2014; Platt et al., 2016; Walsh, 2009).

This study also showed how existing power dynamics within the couple may be reinforced through transnational communication (Chereni, 2015; Hoang & Yeoh, 2011; Parrenas, 2005; Parrenas, 2014; Sørensen & Vammen, 2014). *When* women talked to their husbands was often restricted by their husbands' schedules, leading to a restructuring of their daily lives around their husbands' leisure time. Similarly, descriptions of spousal interactions – which frequently took the form of women reporting what their husbands had told them to do or how they had sought permission or approval from their husbands – often underscored the husband's role as decision-maker regardless of his physical absence from the household. While some women asked for their husband's consent for daily activities, others demonstrated the opportunities that their spouses' migration gave them. The prioritization of certain topics of conversation, particularly urgent or important decisions rather than daily household or agricultural

activities, meant that some women had the potential to gain access to increased responsibilities or autonomy (Chapagain, 2015; Yabiku et al., 2010) in the absence of their spouses in their daily lives. However, previous research in Nepal has emphasized how household structure is critical to understanding the autonomy/responsibility nexus, as shifts in household decision-making during men's migration were less pronounced for women living with in-laws as compared to women living separately (Gartaula, 2013; Giri & Darnhofer, 2010; Kaspar, 2006).

Women in this study demonstrated that they conversed with their husbands about a myriad of different topics. Women also emphasized shifts in the content of these conversations, as a husband's migration and absence led some women to avoid sharing their own hardships and therefore affected the support women felt they received from their absent spouses. Instead, conversations centered around their children and childrearing. While these topics may not necessarily differ significantly from what non-migrant couples discuss in Nepal (Underwood et al., 2016), a husband's absence did play an important role in what was *not* discussed on the phone. While childrearing was frequently mentioned, many women emphasized that they did not talk about, or delayed conversations about, other aspects of reproductive work like whether they wanted to have another child or use a contraceptive method.

This manuscript extended current knowledge about how reproductive health-related topics are discussed in a transnational space as men migrate for work (Agadjanian & Markosyan, 2016; CREHPA, 2012; Hughes et al., 2006; Sevoyan & Agadjanian, 2015). Conversations with women reflected that many planned to wait to communicate with their partners about contraceptive methods and having additional children. Daily life

took priority as couples discussed their children and childrearing, health, or other household issues. Spousal separation due to labor migration therefore affected intimate relationships between partners and the nature of their interactions. The finding that couples may not talk about family planning while the husband is away contrasts evidence from a previous study in Nepal (CREHPA, 2012). At the same time, this study also showed variation in communication about reproductive topics. Those women who said that they do not talk with their spouses about family planning did not all have the same reason for not communicating on these topics. For some, these conversations were not necessary since they wanted another child; for others, it was simply due to their spouses' long absences that they waited to discuss their reproductive futures. In light of the substantial evidence that partner communication has a significant association with family planning use in Nepal (Link, 2011; Sharan & Valente, 2002; Yue et al., 2010), decisions to delay such conversations until later or even after the migration trip should be examined in further detail. Women who do report talking to their partners about family planning could be compared with women who do not to explore the other factors that may be associated with such differences.

Furthermore, research should investigate the actual effects of delaying such conversations for migrant couples. Does it lead to differences in reproductive health practices, contraceptive use patterns, unintended pregnancies or abortions, or reproductive health outcomes? Little evidence exists on these relationships (Uprety et al., 2016). Further research is therefore needed to explore how social factors like labor migration, which have been shown in this manuscript to affect partner communication and intimate relationships, may in turn influence women's reproductive health outcomes.

Programs that acknowledge the pivotal role of communication technologies in how women interact and the nature of intimate relationships with their migrating spouses will be necessary (Hamel, 2009; Pajnik, 2015; Vertovec, 2004). Interventions designed to address spousal communication on family planning, which have demonstrated success in Nepal (Sharan & Valente, 2002; Storey et al., 1999), therefore should identify ways to adapt these programs to account for the transnational social fields within which women in Nepal live. This will demand a rethinking of 1) how these women communicate with their mobile spouses and 2) whether it is important for women to communicate with their spouses about family planning and other reproductive topics as they leave and return. Integration of mobile technologies through mHealth interventions, particularly through the use of mobile technologies that enable low-cost international communication like Skype, Facebook, or Viber, could be a novel way to begin such work with migrant couples.

Future research should continue to explore the context and content of women's conversations with their migrating spouses by using qualitative methods, such as ethnography or the collection of communication diaries (Pajnik, 2015), as well as quantitative methodological and analytical approaches. Collection of information across time, and from both members of a couple separated by labor migration, would extend our understandings of how transnational social fields are developed, restructured, maintained, and experienced by both women "left behind" in Nepal and their migrant partners.

### *Strengths and limitations*

This qualitative study was not designed to be generalizable; rather, this study was focused on providing a detailed exploration of women's intimate relationships with their migrant partners to highlight the transferability (Green & Thorogood, 2013) of themes for future research. Feedback and debriefing sessions assessed the quality of each interview during data collection, while follow-up interviews enabled the research team to fill gaps in understanding with the participants. An iterative coding process ensured that researchers questioned their own conclusions and drew on data to support all findings. Together, these efforts support the credibility and dependability of the results presented here.

It is also important to discuss the potential limitations of this qualitative study. This study did not compare women's experiences based on their husbands' migration trajectories; future research is needed to look at such differences. The identities of the researchers, who were not from the communities where participants were recruited, may have affected women's loquaciousness during interviews. The use of follow-up interviews helped to build rapport with participants, but it is important to acknowledge how researchers themselves, as well as those key informants who assist in the data collection, are implicated in the research process and the data gathered (Boyчук Duchscher & Morgan, 2004). Finally, although this study focuses on partner communication as a facet of intimate relationships and household gender dynamics, it does not investigate other aspects of intimate relationships that could have been affected by migration such as understandings of love, emotional connections, or relationship

satisfaction. Future exploration of these themes and additional qualitative and quantitative studies are needed.

## **Conclusion**

In light of robust associations of partner communication with women's use of contraception and reproductive healthcare seeking, this study explored how a partner's absence due to labor migration restructured partner interactions and intimate relationships in Nepal. Technological advances made communication feasible in both rural and urban areas. A husband's migration played an intimate role in some women's daily lives as communication routines were established. Conversations revolved around children and their needs, and gendered roles were both reinforced and challenged during these conversations. Labor migration transformed how communication about reproductive topics like future childbearing and contraceptive use took place, with many women describing decisions to wait to discuss family planning or future children until their husbands returned. Such delays have the potential to affect women's reproductive health outcomes. Together, this research suggests that in contexts where labor migration patterns affect daily interactions and may delay communication about family planning, policies and programs must address the unique needs of couples with migration experience to improve the relevance of these programs to people's daily lives.

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## Chapter Six: Manuscript #3

### **What family planning metrics miss for transnational couples: An examination of the intersections of partner communication, contraceptive use, and spousal labor migration in 12 districts in Nepal**

#### **Abstract**

**Background and objectives:** Amid widespread male labor migration in Nepal, an understanding of how spousal separation affects communication about reproductive health topics and women's family planning practices is urgently needed. This study examined the association between spousal labor migration experience and 1) women's current contraceptive use and 2) partner communication about family planning in Nepal.

**Methods:** The Nepal Health Communication Capacity Collaborative (HC3) baseline survey was administered in 2015 in 12 districts. Binary and multiple logistic regression analyses were performed on self-reported responses from married women of reproductive age with children under five (n=1793). Multivariate models adjusted for aspects of women's household contexts and social locations.

**Results:** In adjusted models, a spouse's current migration was negatively associated with current contraceptive use and partner communication about family planning. Women whose husbands were residing in more distant destinations or who had been away for

longer periods of time had greater reductions in odds of current contraceptive use or partner communication about family planning after adjusting for household and socio-demographic characteristics.

**Discussion:** Findings suggest that spousal labor migration experience is an important aspect of women's social locations that affects women's contraceptive practices and interactions with their partners. The development and use of metrics that are sensitive to the social locations of couples separated by labor migration in Nepal is urgently needed. A focus on partner communication about family planning could be a useful approach for programs addressing the reproductive health needs of transnational couples.

## Background

Most research on the sexual and reproductive health of labor migrants in South Asia has focused on migrants' sexual risk (Bam et al., 2013; Deb et al., 2009; Islam & Conigrave, 2008; Mercer et al., 2007; Rodríguez et al., 2010; Roy et al., 2013; Saggurti et al., 2009; Verma et al., 2010; Weine & Kashuba, 2012). Labor migrants, due to their mobility, are often referred to as “bridging populations” that connect communities and may be exposed to or transmit HIV and other sexually transmitted infections (STIs) across borders (Islam & Conigrave, 2008; Roy et al., 2010; Roy et al., 2013). Less common has been the study of sexual and reproductive health practices and outcomes of migrants' *spouses* during periods of spousal separation (Halli et al., 2007; Lurie, 2006; Mercer et al., 2007; Smith-Estelle & Gruskin, 2003). Limited research has investigated the use of contraception among labor migrants' spouses in South Asia or in Nepal specifically (Ban et al., 2012; Khanal et al., 2013; Mansur et al., 2012). The few prior studies conducted on contraceptive use were qualitative or descriptive in nature, showing low contraceptive use and high unmet need for contraception among labor migrants' spouses in Nepal, Bangladesh, and India (Ban et al., 2012; Dayama et al., 2012; Khanal et al., 2013; Mansur et al., 2012). These associations varied by duration of a husband's absence, with current contraceptive use lower and unmet need higher for those whose husbands had been absent for longer periods of time (Ban et al., 2012).

Whether current use and unmet need are relevant measures of family planning and reproductive health for labor migrant couples remains an important issue (Bradley & Casterline, 2014). Some qualitative studies have suggested that women with migrant husbands or migrant men themselves may report that there is no need for the use of

contraception during periods of separation, since it is assumed that women will not be engaging in sexual relations and thus will not be at risk of getting pregnant (CREHPA, 2012; Underwood et al., 2016). Research comparing reasons for non-use among women with unmet need from the 2011 Nepal Demographic and Health Survey (NDHS-11) also found that not having frequent sex or absence of a spouse were the primary reasons given by women “left behind” for not using a contraceptive method (Sedgh & Hussain, 2014). For women with labor migrant partners, the researcher-defined measure of unmet need for family planning may therefore not reflect the same unmet needs that women would define for themselves (Ban et al., 2012; MOHP, 2015; Shrestha et al., 2012; Stash, 1999). In a study comparing factors that contribute to unmet need (Bradley & Casterline, 2014), spousal absence explained a major proportion of the national unmet need estimated based on data from the NDHS-11.

Despite these critiques of current use and unmet need, the Government of Nepal and family planning programs continue to rely on current use and unmet need as metrics of access to and use of contraception (MOHP, 2015). Due to the limitations of these measures, it is necessary for researchers to identify other, more locally relevant ways to assess family planning practices and reproductive health outcomes for women with labor migrant spouses. Measures of household gender dynamics like partner communication, as described below, may prove to be a useful avenue for research and programming for this population of women.



*Partner communication and family planning practices: A way forward for studies with spouses of labor migrants*

The multi-level effects of household gender dynamics on women's use of family planning services and reproductive health outcomes have been demonstrated both in Nepal and in other lower- and middle-income countries (Ahmed et al., 2010; Do & Kurimoto, 2012; Gubhaju, 2009; Satyavada & Adamchak, 2000). Studies of gender dynamics at the household level have examined relationships between men and women by looking at their relative roles in and ability to make household decisions, including financial, health, travel, and mobility decisions (Ahmed et al., 2010; Corroon et al., 2014; Furuta & Salway, 2006; Pratley, 2016; Senarath & Gunawardena, 2009). Much of this research has demonstrated a positive association between partner communication and women's reproductive healthcare seeking (Bawah, 2002; Chapagain, 2005; Hameed et al., 2014; Link, 2011; Mosha et al., 2013; Wegs et al., 2016; Yue et al., 2010). Partner communication about family planning in particular is significantly associated with current use of a contraceptive method (Bawah, 2002; Malhotra et al., 2002). As a result, family planning and health communication interventions in multiple settings have focused on partner communication in their programming (Hartmann et al., 2012; Kraft et al., 2014; Wegs et al., 2016). Despite the established relationship between partner communication and reproductive health outcomes, however, few studies have looked quantitatively at how partner communication about reproductive topics is affected by labor migration of a spouse (Agadjanian & Markosyan, 2016; Hughes et al., 2006; Sevoyan & Agadjanian, 2015).

### *Labor migration and partner communication in Nepal*

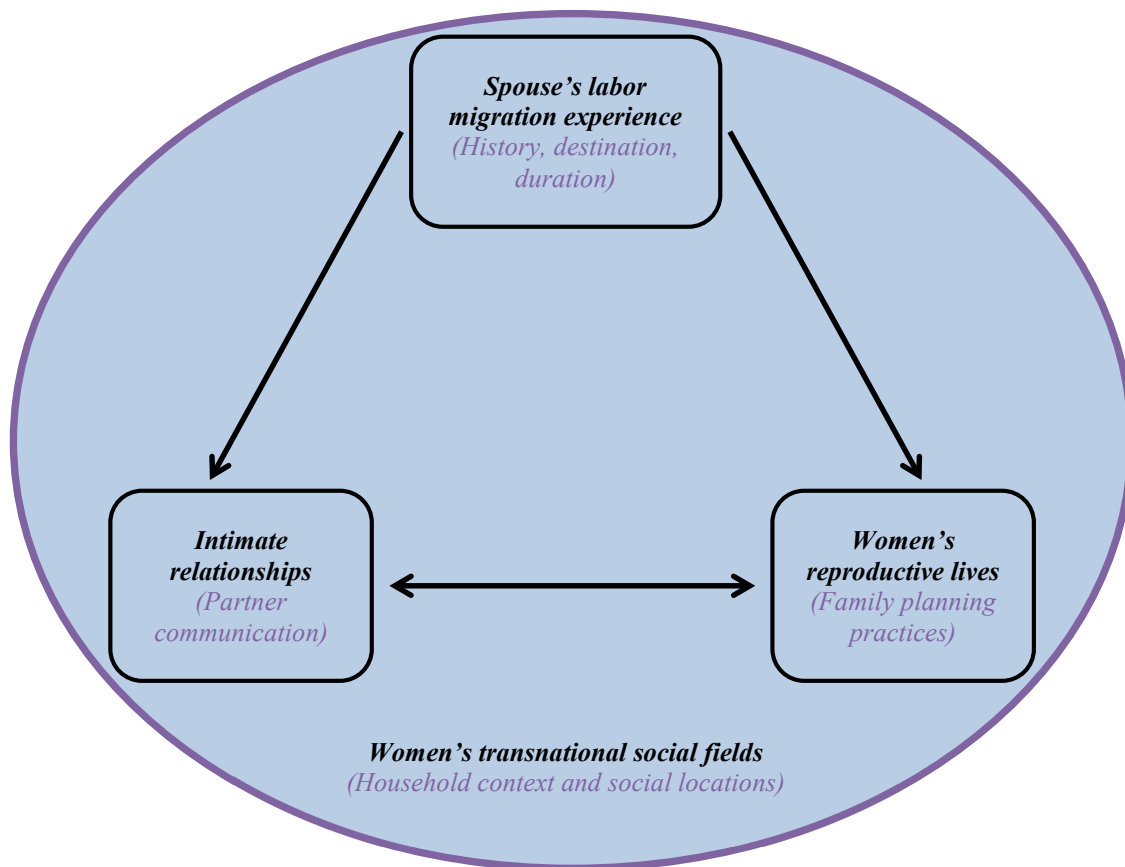
Labor migration may change partner communication and intimate relationships between spouses in Nepal. In other settings, studies have shown how migration shifts spousal interactions and relations during separation (Bacigalupe & Camara, 2012; Collins, 2009; Hannaford, 2015; Horst, 2006; Hughes et al., 2006; Kang, 2012; Nedelcu & Wyss, 2016; Platt et al., 2016). However, there remains a dearth of information on the relationship between spousal separation due to labor migration and partner communication about reproductive health topics (Agadjanian & Markosyan, 2016; CREHPA, 2012; Hughes et al., 2006; Sevoyan & Agadjanian, 2015). In Tajikistan, limited communication between spouses during husbands' absences intersected with gender dynamics that restricted communication about sexual health topics, leading to low communication about reproductive health during spousal migration (Golobof et al., 2011). Women "left behind" in South Africa who were separated from their partners for longer periods of time were less likely to report talking with their partners about sex (Hughes et al., 2006). Studies in Armenia regarding communication about STIs found the reverse (Agadjanian & Markosyan, 2016; Sevoyan & Agadjanian, 2015). However, few studies have addressed the relationship between migration and partner communication in Nepal (CREHPA, 2012; Gartaula, 2013; Gartaula et al., 2012; Poertner et al., 2011). More extensive and generalizable knowledge about these relationships in Nepal is urgently needed to inform effective public health programming for migrant couples.

### *Study objectives and conceptual framework*

While emerging studies have found that women whose husbands are migrating report low contraceptive use in Nepal, quantitative analyses have failed to explore the different characteristics of labor migration experience and have neglected to examine relationships with family planning metrics like current use after accounting for other aspects of women's social locations and transnational lives (Ban et al., 2012; CREHPA, 2012; Khanal et al., 2013; Levitt & Schiller, 2004). In light of evidence that partner communication, including that on reproductive health topics, may be affected by a partner's labor migration (Agadjanian & Markosyan, 2016; CREHPA, 2012; Hughes et al., 2006; Sevoyan & Agadjanian, 2015) and is related to current use of a contraceptive method and other reproductive health outcomes (Pratley, 2016), we aimed here to quantitatively examine the association between partner's labor migration experience and 1) current use of a contraceptive method and 2) partner communication about family planning topics.

It was hypothesized that women with migrating husbands would be less likely to be currently using a contraceptive method than women living with their spouses. Partner communication about family planning was hypothesized to be positively associated with current use of a contraceptive method after adjusting for a husband's labor migration experience. It was also hypothesized that, due to their separation, women whose husbands were currently away would communicate less with their partners about family planning as compared to women whose husbands either had not recently migrated or were not currently away.

The conceptual framework guiding this study can be found in Figure 6.1. This conceptual framework is informed by a transnational conceptualization of the social fields that Nepali women navigate in their daily lives. These transnational social fields are structured and transformed through social interactions, connections, and relationships in households and communities or across borders (Levitt & Schiller, 2004). These social fields and the interactions that shape them affect women's household contexts and social locations by reinforcing and challenging power relations and larger socio-cultural norms and practices (Amelina & Faist, 2012; Levitt & Schiller, 2004; Nedelcu, 2012; Pessar & Mahler, 2003). As a result, this conceptual framework depicts women's transnational fields as linked with women's household contexts (e.g. household structure or gender dynamics), and social locations (e.g. factors that influence economic opportunities like wealth, education, or caste/ethnic group).



**Figure 6.1. Conceptual framework guiding research question and objectives of this study.**

Arrows reflect primary associations of interest. The blue field represents the adjusting variables, which encompass aspects of women's household contexts and social locations, that are included in all multivariate analyses. By portraying these adjusting variables as a field, this conceptual framework builds on the transnational social fields perspective (Levitt & Schiller, 2004) to highlight how women's household contexts and social locations are the product of social interactions at multiple levels that span both space and time.

## Methods

### *Setting and sampling*

Data were gathered as part of the Nepal Health Communication Capacity Collaborative (HC3) Project's baseline study. The Nepal HC3 baseline survey was administered in summer 2015 using a stratified multi-stage cluster sampling design that recruited a household-based sample of eligible respondents from 1,940 households. The household refusal rate was 1%. The sample included a randomly selected household sample representative of Nepal HC3 intervention districts and matched comparison districts. Of 13 HC3 intervention districts, six were selected for the baseline survey and matched with six comparison districts based on Human Development Index scores, population, and number of resident married women of reproductive age (MWRAs). The 12 districts sampled at baseline were from eastern, central, mid-western, and western regions of Nepal: Saptari, Siraha, Parsa, Chitwan, Tanahun, Syangja, Kaski, Parbat, Baglung, Gulmi, Dang, and Kailali. Recruitment, screening for eligibility, and data collection were facilitated by Valley Research Group (VaRG).

Households were eligible for participation if there was a resident, ever-married woman of reproductive age (18–49) who had a child under the age of five. Resident husbands of eligible women (18–49), mothers-in-law (35–49), one mother with a child under five and one nulliparous woman (18–49), and one unmarried youth (aged 15–24) currently living in eligible households were recruited from each participating household. A head of household (18–59) was selected to complete the household questionnaire. The responses from currently married women of reproductive age (18–49) with a child under five were the focus of analysis (n=1,933). Final analyses excluded women using a

permanent contraceptive method (n=140) and therefore were based on responses from 1,793 women, since respondents using a permanent contraceptive method were not administered items on communication about family planning.

### *Measures of interest*

#### **Outcome variables**

1. ***Family planning practices***: Family planning practices were operationalized by women's self-reported current use of any contraceptive method (either traditional methods like withdrawal or modern methods like contraceptive pills or injections) (MOHP et al., 2012). Any method of contraception was used due to recent evidence that use of "traditional" methods rose among individuals currently separated from their partners in Nepal between the 2006 and 2011 NDHS (Khanal et al., 2013).
2. ***Partner communication about family planning***: Informed by measures used in research in Nepal (Link, 2011; Yue et al., 2010), a scale was constructed using exploratory factor analysis of responses to three questions regarding whether partner communication had recently taken place within the past six months or a year about 1) whether to use (one year), 2) what method to use (six months), and 3) where to get the method (six months) ( $\alpha=0.93$ ). For the purposes of analysis, this scale was dichotomized such that reported communication about at least one family planning topic was coded 1, while not talking to a spouse about any family planning topics was coded 0.

## Independent variables of interest

Partner's labor migration experience was defined as having a spouse who had lived away from the household for at least three months in the past five years to capture short term or seasonal migration and long-term migration (de Brauw & Carletto, 2012). A five-year recall period was used to ensure consistency with the Nepal Census and other national surveys in Nepal and reduce risk of recall bias over a longer period of time (Ban et al., 2012; CBS, 2010; de Brauw & Carletto, 2012). A three-month period of separation is a relevant threshold for family planning studies since the three-month mark is the longest that a temporary, short-acting method (e.g. three-month injection) would be effective before a decision would need to be made regarding whether to continue or discontinue the method. At that juncture, decisions about continuation or discontinuation may lead to differences in contraceptive use of women currently separated from their partners and women cohabitating (Ban et al., 2012, p. 44). Informed by methodological recommendations from other researchers (de Brauw & Carletto, 2012; Schenker et al., 2014, p. 25), partner's current and previous migration experiences were assessed through the measurement of 1) migration history, 2) destination, 3) duration, and 4) a combination of destination and duration.

1. ***Migration history***: Categorical indicator comparing 1) women whose husbands were currently migrating to 2) women whose husbands had previously migrated and had returned to 3) women whose husbands had no recent migration experience.
2. ***Destination of current migration***: Categorical indicator disaggregating women whose husbands were currently migrating based on destination of migration,



including internal and foreign destinations like India, Malaysia, and Persian Gulf countries (CBS, 2010; MOHP et al., 2012).

3. ***Duration of current migration***: Categorical indicator disaggregating women whose husbands were current migrants based on duration of current absence. Current absence was calculated using a migration calendar that assessed spousal separation and cohabitation for each month over the past 60 months (five years). Length of current separation for women reporting current spousal migration was summed and categorized into three durations: 0–6 months, 7–12 months, and 12 or more months.
4. ***Duration and destination of current migration***: Categorical indicator disaggregating women whose husbands were current migrants based on both destination and duration of current migration. Compared 1) longer (more than 6 months) and farther (other international) migration to 2) shorter (less than 6 months) and farther (other international) migration to 3) longer and proximate (internal or to India) to 4) shorter and proximate.

Due to evidence of the impact of women's social locations and household contexts on contraceptive use in Nepal (e.g. Khanal et al., 2013; Link, 2011; MOHP, 2012), respondents' age (continuous), caste/ethnic group (categorical), wealth (categorical), educational attainment (categorical), household type (living in a joint family vs. not, binary), parity (categorical), rural or urban residence (binary), ecological zone (*terai*, i.e. plains, vs. hill, binary), and gender normative attitudes (binary) were considered for inclusion in multivariate analyses (MOHP et al., 2012).

Age had a piece-wise relationship with both current use of any contraceptive method and partner communication at 27 years of age. As a result, a linear spline was included at age=27 years in all analyses. Caste/ethnic groups were disaggregated by ecological region due to variations in caste/ethnic groups between hill and *terai* regions (MOHP, 2012): hill Brahmin/Chhetri/Janajati, *terai* Brahmin/Chhetri/Janajati, hill Dalit, *terai* Dalit, and Muslim. Dalit and Muslim groups were not aggregated due to their unique histories of marginalization in Nepal (Bennett et al., 2008; Pandey et al., 2013; Sapkota et al., 2016; Sunam, 2014). Household wealth was measured in quintiles and determined through the development of a wealth index using principal component analysis of ten measures of household organization and construction materials, access to drinking water and toilet facilities, financial savings, and ownership of household goods following recommendations from the NDHS-11 (Rutstein, 2015). Educational attainment was categorized as never attended school, received some or completed primary, received some secondary, or completed secondary and higher. Parity was measured by respondents' live births and categorized as: one, two, three, or four or more live births (MOHP, 2012).

To measure gender normative attitudes, a previously validated scale focused on men's and women's rights and girls' equity was used (Nanda, 2011). The scale included questions on women's education, rights, roles, and work in the household and was originally validated with women in Egypt (Waszak et al., 2001). Exploratory factor analysis was performed to determine the dimensionality of the items and to determine whether a scale with high reliability could be constructed. The factor structure suggested the existence of two factors, but the second factor had low reliability ( $\alpha=0.67$ ) and so

only the first factor (composed of eight indicators on women's education, roles, and opportunities) was utilized in analyses ( $\alpha=0.87$ ). This was a continuous scale with potential responses ranging from 1-25 and was dichotomized, cut at the median, for analyses. Women responding "don't know" to at least one item in the scale were considered to have missing values for the entire scale.

### *Analysis*

All statistical analyses were performed in Stata13 (StataCorp, 2013). Frequency counts and percentages as well as means and standard deviations were calculated for the full sample and by women's partners' labor migration experiences. To determine the internal consistency of the partner communication on family planning and gender normative attitudes scales, Cronbach's alpha coefficients were calculated. High reliability was defined as a Cronbach's alpha greater than 0.70 (Tavakol & Dennick, 2011).

Bivariate analyses, including  $\chi^2$  tests and simple binary logistic regressions, were performed. Multiple logistic regressions were used to calculate adjusted odds ratios and their associated confidence intervals and p-values after adjusting for characteristics of women's household contexts and social locations. Final models presented here had current contraceptive use and partner communication as outcomes of interest and spousal labor migration experience as the primary independent variable of interest. Partner communication about family planning was also included as an independent variable of interest for models of current contraceptive use. Final models were adjusted for women's gender normative attitudes, women's age, household wealth, caste/ethnic group, rural/urban residence, and ecological zone. Frequency of communication with a spouse

during his most recent/current migration (categorical) was included in multiple logistic regressions of partner communication about family planning as a sensitivity analysis to assess whether the observed associations between spousal labor migration experience and partner communication were the result of differences in frequency of communication. This sensitivity analysis restricted the sample to women whose partners had labor migration experience (n=1,093).

Statistical significance was assessed at the 0.05 level. Model selection was based on 1) F-tests assessing variable contribution to the model, 2) variance inflation factors assessing collinearity among covariates, 3) lower Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) values assessing which models were most parsimonious, and 4) Hosmer-Lemeshow goodness of fit tests. Models constructed were compared with suggested models from both forward and backward stepwise estimation techniques as a sensitivity analysis for final model selection. All models presented here were good fits of the data ( $p > 0.05$ ).

## Results

Socio-demographic characteristics of the sample disaggregated by migration experience are shown in Tables 6.1, 6.2, and 6.3.<sup>29</sup> Mean age was 26 years (SD: 5.2). Women were from a variety of caste/ethnic groups, with Hill Brahmin, Chhetri, or Janajati the most common. Muslim women composed only 6% of the sample of married women of reproductive age. More than 60% of women had husbands with recent migration experience, and 40% of women's husbands were currently migrating for work

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<sup>29</sup> Note: Tables are found at the end of this manuscript prior to the references.

(Table 6.1). These men were currently traveling internationally to countries in the Persian Gulf and other higher-income countries (20%), Malaysia (6%), and India (8%). Only 6% were reportedly traveling internally for work. Women reported that their husbands who were currently absent from the household had been gone for between one month and five years, with 15% absent for less than six months and 16% absent for at least one year (Table 6.2). Among women whose husbands had recent migration experience, nearly 43% talked with their partners every day while they were gone (Tables 6.1, 6.2, and 6.3).

Women whose husbands had migration experience more often identified themselves as being from Hill caste/ethnic groups. Women with migrant spouses were more often from rural areas, had higher educational attainment, and were disproportionately in lower wealth quintiles than women with non-migrant spouses, although wealth also varied by destination and duration of current migration (Tables 6.2 and 6.3).

Approximately 33% of women reported currently using a non-permanent contraceptive method of any type. Most of these women reported using a modern contraceptive method. Approximately half of women (51%) reported having talked recently with their partner about one of three family planning topics (Table 6.1).

Bivariate logistic regressions assessing the unadjusted association between husband's migration experience and current use of any contraceptive method are shown in Table 6.4. Women whose husbands were currently migrating had 96% reduced odds of currently using a contraceptive method as compared to women whose husbands did not have recent migration experience (OR: 0.04, 95% CI: 0.03-0.06,  $p < 0.001$ ). The odds of using a contraceptive method among women whose husbands had previously migrated

but were not currently away were not significantly different from the odds among women with non-migrant spouses (OR: 1.07, 95% CI: 0.83-1.38,  $p>0.05$ ). A comparison of migration experience disaggregated by destination showed that although the magnitude of the associations differed, women whose husbands were migrating to both distant and more proximate locations were significantly less likely to report currently using a contraceptive method when compared to women whose husbands had no recent migration experience (OR: 0.01, 95% CI: 0.00-0.03,  $p<0.001$  vs. OR: 0.17, 95% CI: 0.1-0.3,  $p<0.001$ ; Table 6.4). Duration of husband's current absence was significantly negatively associated with current use of a contraceptive method (Table 6.4).

Multiple logistic regression models of the association between current use of a contraceptive method and husband's migration experience, partner communication about family planning topics, and other characteristics of women's social locations and household contexts are depicted in Table 6.5. Women whose spouses had previously migrated were not significantly less likely to report currently using a contraceptive method as compared to women with non-migrant spouses after adjustment ( $p>0.05$ ). Current migration remained significantly negatively associated with current use of a contraceptive method (AOR: 0.04, 95% CI: 0.02-0.06,  $p<0.001$ ; Table 6.5). Distance of current destination and duration of migration remained significantly negatively associated with current contraceptive use in adjusted models 5, 6, and 7 (Table 6.5). Across all models, partner communication about family planning remained significantly and positively associated with current use; women who reported having talked with their spouses about family planning were between 3.9 and 4.2 times more likely to report currently using a contraceptive method than women who had not talked with their

husbands about these topics after adjustment for husband's migration experience, gender normative attitudes, age, number of live births, caste/ethnic group, rural/urban residence, ecological zone, and wealth (Table 6.5). Inclusion of labor migration experience attenuated the strength of the association between partner communication about family planning topics and current contraceptive use (magnitude of confounding: 39% to 43%).

Bivariate analyses of associations with partner communication about family planning topics are shown in Table 6.4. As with current use of a contraceptive method, women whose husbands were currently migrating had reduced odds of having spoken with their spouses about family planning as compared to women whose husbands had no recent migration experience (OR: 0.3, 95% CI: 0.2-0.3,  $p < 0.001$ ). Women whose husbands had previously migrated but were not currently away or who were migrating to other areas of Nepal were not significantly more likely to have reported family planning-related partner communication (OR: 1.3, 95% CI: 1.0-1.7,  $p > 0.05$ ; OR: 0.94, 95% CI: 0.6-1.4,  $p > 0.05$ ). Similarly, women whose husbands had been away for less than six months also did not have significantly reduced odds of having spoken with their partner about family planning-related topics as compared to women with non-migrant spouses (OR: 0.8, 95% CI: 0.6-1.0,  $p > 0.05$ ).

Multiple logistic regression models assessing associations with partner communication about family planning topics are shown in Table 6.6. After adjusting for gender normative attitudes, age, live births, caste/ethnic group, rural/urban residence, ecological zone, and wealth, husband's migration experience remained significantly associated with partner communication about family planning. While women whose husbands had previous migration experience and who were internal migrants were not

less likely to talk about family planning topics ( $p>0.05$ ), women whose husbands were traveling to more distant locations were significantly less likely to have reported talking recently with their spouse about these topics after adjustment for household and socio-demographic characteristics (Table 6.6). There was a dose response by duration of current absence, with the odds of partner communication smaller with increased duration of absence. Women whose husbands were migrating for shorter periods within Nepal or India did not have significantly reduced odds of partner communication about family planning topics after adjustment for household context and socio-demographic characteristics ( $p>0.05$ ), but those traveling internally or in India who were absent for more than six months were, like those traveling elsewhere internationally for both less than six months and longer periods, less likely to report having spoken with their partners about family planning (Table 6.6).

To ascertain whether the relationship between spousal labor migration experience and partner communication about family planning was an artifact of differences in frequency of communication during separation, frequency of communication during migration was added as a potential confounder to models of partner communication (Table 6.7). After adjusting for frequency of communication, spousal labor migration experience remained significantly associated with partner communication about family planning. As compared to women whose partners had recent migration experience, women with currently migrating spouses had significantly reduced odds of partner communication about family planning (AOR: 0.18, 95% CI: 0.13-0.24,  $p<0.001$ ). More distant destinations and longer durations of separation remained significantly associated with reductions in odds of talking with a spouse about a family planning topic after



adjustment for frequency of communication and other characteristics of women's social locations and household context. Adjusted models showed that women who reported talking with their spouses every day as well as more than once a week were between 1.6 and 2.1 times more likely to report having spoken to their spouse about family planning as compared to women who reported talking with their spouses less than once a week (Table 6.7).

## Discussion

This study is the first quantitative exploration of the intersections of partner communication, labor migration, and family planning in Nepal. Women whose husbands were currently migrating were significantly less likely to report currently using a modern or traditional contraceptive method after adjustment for aspects of women's social locations and household characteristics. Women whose husbands were currently migrating were also significantly less likely to report having recently talked with their partners about family planning as compared to women with non-migrant spouses. These findings extend previous research on the effects of labor migration on contraceptive use (Ban et al., 2012; CREHPA, 2012; Khanal et al., 2013) by looking beyond spousal separation and duration of separation and examining current contraceptive use by migration history, destination, and duration as well as adjusting for other aspects of women's social locations using multiple logistic regression techniques.

While studies in Nepal and around the world have explored the relationship, both qualitative and quantitative, between partner communication and reproductive health outcomes like current use of a contraceptive method (Bawah, 2002; Chapagain, 2005;

Hameed et al., 2014; Link, 2011; Mosha et al., 2013; Wegs et al., 2016; Yue et al., 2010), this study extended these analyses by assessing the confounding effects of another important aspect of women's social locations: spousal labor migration experience. Across all models, adding spousal migration experience to multivariate models led to between a 39% and 43% reduction in the strength of the association between partner communication about family planning and women's current contraceptive use. Further investigation of the implications of this confounding effect for family planning and other reproductive health practices is necessary.

While some studies have qualitatively explored the effects of labor migration on gender dynamics and partner communication in Nepal (Adhikari & Hobley, 2015; Chapagain, 2015; CREHPA, 2012; Gartaula et al., 2012; Kaspar, 2006; Lokshin & Glinskaya, 2009), little research has explored the relationship between labor migration experience and partner communication on reproductive health topics either in Nepal or elsewhere (Agadjanian & Markosyan, 2016; CREHPA, 2012; Hughes et al., 2006; Sevoyan & Agadjanian, 2015). In Nepal, this is the first study to date to have drawn on such a large data set to assess how a husband's labor migration is associated with partner communication about family planning.

The negative associations between spousal labor migration experience and contraceptive use expose a major concern with measuring reproductive practices among women with migrant spouses in Nepal. Current family planning metrics lack robust ways to measure utilization of, demand for, or intention to use services in a setting where couples are increasingly transnational and separated for extended periods of time (Ban et al., 2012; Shrestha et al., 2012; Stash, 1999). Improved metrics are urgently needed not

only in Nepal, but also in other settings where labor migration has shifted household composition. Targeted questions about communication about family planning prior to return, women's intention to use upon return, and use upon return could be added to existing migration modules in health surveys. In response to the limitations of traditional measures like current use, other household-level indicators shown to be strongly associated with contraceptive use and improved reproductive health outcomes, such as partner communication (Pratley, 2016), could be useful areas of further investigation.

Furthermore, future research should explore whether low rates of current use of a contraceptive method among women with migrant spouses is related to reproductive health outcomes like unintended pregnancy following a husband's return. Improved analyses of the effect of spousal labor migration on reproductive health outcomes like use of emergency contraception, abortion, or unintended pregnancy are also needed. Labor migrants are not a homogenous group, and this study has shown that migration does not have uniform, lasting effects on women's intimate relationships or contraceptive practices. For both contraceptive use and partner communication, women with husbands who had previously migrated were not significantly different from those whose husbands had no recent migration experience. It is therefore essential that researchers, program developers, and policymakers understand the health effects of labor migration and spousal separation. These relationships must be understood in more depth prior to making assumptions that could lead to the definition of migrants and their spouses in Nepal as "high-risk," "low contraceptive use" populations as has been done with migrants in HIV research (Aggleton et al., 2014; Islam & Conigrave, 2008; Roy et al., 2010; Roy et al., 2013).

In addition to expanding the literature at the intersections of household gender dynamics, reproductive health, and migration, this study complicates crude measures of migration experience currently used in reproductive health research that often fail to disaggregate by important characteristics of migration like migration history, destination, and duration. In Nepal, research on contraceptive use and migration have relied on spousal separation as an indicator of all labor migration experience and ignored the ways in which labor migration may vary (Ban et al., 2012; Khanal et al., 2013). In response to these limitations, this study built on methodological recommendations from the International Food Policy Research Institute, the World Bank, and others (Bell, 2004; de Brauw & Carletto, 2012; Schenker et al., 2014) to perform more nuanced analyses that included measures like migration history, destination, duration, and the intersections of these characteristics.

### *Programmatic and policy implications*

This study has wide-reaching implications for programs and projects working on family planning and gender dynamics in Nepal. First, programs should ensure that more nuanced understandings of migration experience be included in program design and evaluation. Current family planning programs focus extensively on demand-generation activities for marginalized populations and young couples (HC3, 2014; Sapkota et al., 2016) and supply-side interventions to improve quality of services, reduce stock-outs, and increase competency (FP2020, 2016; MOHP, 2015; USAID, 2015). While recent implementation plans have called for migrant-specific programming (MOHP, 2015), the HC3 Project remains one of the only projects with explicit objectives and targeted

activities designed to address the reproductive needs of this population (HC3, 2014).

Second, these findings indicate that rather than advocating for the use of family planning services based on researcher-defined measures of women's reproductive needs, programs could instead focus on partner communication about family planning at different moments: while a spouse is away, prior to his return, and during periods of cohabitation. In this way, these programs would alleviate concerns about failing to acknowledge women's self-identified family planning needs and would provide a unifying theme for work at the national level on family planning in Nepal. In addition, existing efforts to integrate gender equity and dynamics into reproductive health programs would be strengthened through a more nuanced embrace of couples' interactions and discussions about family planning. Finally, disaggregating labor migration experience could suggest avenues through which such programs could be particularly effective. Programs could be designed for different audiences based on the characteristics of their transnational relationships with their migrant spouses. These analyses suggest, for example, that women with spouses migrating to more distant destinations or who have been absent for longer periods could be important intended audiences of such programs.

The Government of Nepal and international development programs have worked in the areas of family planning and reproductive health in Nepal for decades, with national policies and programs often critiqued for their failure to acknowledge the diversity of lived experiences of Nepali women (Brunson, 2016). In light of the rampant migration both internally and internationally for work (GON, 2014; ILO, n.d.; IOM, 2015), it is essential that policies address migration experiences in their development of family planning benchmarks. While Nepal's recent National Family Planning Costed

Implementation Plan 2015-2020 acknowledges the challenges labor migration poses to appropriate measurement of family planning practices, this document does not acknowledge variations in labor migration experience (MOHP, 2015). If the metrics of family planning utilization are not sensitive to the lived experiences of women of reproductive age in Nepal, then those standards set at the national level, even if met, will fail to ensure that women's reproductive needs and desires are prioritized and reproductive autonomy ensured. Revisions to the measures used for contraceptive rates in Nepal will be essential. Ensuring that governmental and non-governmental programs and researchers use these measures will be imperative. Finally, additions of more complex measures of labor migration that disaggregate by migration history, destination, and duration will also be necessary.

### *Strengths and limitations*

The large sample size for the HC3 baseline survey provided sufficient power for the detection of differences in partner communication and contraceptive use by labor migration experience. Due to the cross-sectional nature of the dataset, this study does not seek to draw causal claims. Directionality of the relationship between partner communication and current use of a contraceptive method, for example, cannot be assessed in these analyses due to the lack of knowledge about temporal order.

Relationships identified in analyses were only generalizable to the larger population of women with a child under five not using a permanent method who live in the districts sampled. As labor migrants tend to be younger (Khanal et al., 2013) and often travel to support their children and the household (Asia Foundation et al., 2013), the

baseline survey's focus on households with resident women of reproductive age with young children ensured that women whose partners had labor migration experience composed a large proportion of the sample. These household inclusion criteria mean that the results described here are not necessarily representative of all women with labor migrant spouses in Nepal, but instead are relevant to households where women who have young children live. The sample was also not representative of all districts in Nepal. This is important to note, given the variation of labor migration destination and experience across districts (Chapagain, 2015). However, the 12 sampled districts included variation by region, ecological zone, MWRA population, and HDI scores and therefore included diverse experiences of women in Nepal.

Working with Nepal-based researchers with experience working on sensitive topics like family planning helped to reduce potential biases from poor data collection. All responses used in the present analyses were based on self-report and were therefore subject to social desirability and recall bias. In particular, although these analyses rely on self-reported use of a family planning method, which may be affected by response bias, the focus on *current* use in the present analyses reduced the potential for recall bias (DiClemente et al., 2013).

## Conclusion

This study drew on data from the Nepal HC3 Project to examine the intersections of spouse's labor migration experience, women's contraceptive practices, and reported communication with partners about family planning. Current migration of a spouse for work was negatively associated with current use of a contraceptive method and

confounded the relationship between partner communication about family planning and current use. Further analyses demonstrated the negative association between current labor migration and recent partner communication about family planning topics, even after adjusting for frequency of communication when spouses were separated. These findings suggest 1) the need for more appropriate measures of family planning utilization for women whose partners migrate for work, 2) the importance of disaggregating labor migration rather than assuming a uniform effect of “any” labor migration experience, and 3) that family planning programs could begin to address the reproductive health of women with migrant partners through a focus on partner communication.



## Tables

**Table 6.1. Current use of a contraceptive method, partner communication, gender equitable attitudes, and household and socio-demographic characteristics of respondents, disaggregated by spousal migration history (n=1793).**

	No experience	Has migration experience, not away	Has migration experience, currently away	Total	Total (n)
<b>Current use of any contraceptive method (%)</b>					
No use	48.1	46.4	95.5	66.8	1197
Current use of any method	51.9	53.6	4.5	33.2	596
<b>Communication about family planning-related topics (%)</b>					
No recent communication	37.3	31.5	68.9	48.7	874
Any recent communication	62.7	68.5	31.1	51.3	919
<b>Frequency of communication with spouse during last/current migration <sup>†</sup> (%)</b>					
Once a week or less	n/a	21.9	22.6	22.3	244
More than once a week but less than every day	n/a	34.1	35.8	35.2	385
Every day	n/a	44.0	41.6	42.5	464
<b>Women's gender equitable attitudes <sup>‡</sup> (Scale range: 1-25) (%)</b>					
Less equitable (range: 1-15)	44.1	42.4	37.0	40.9	716
More equitable (range: 16-25)	55.9	57.6	63.0	59.1	1035
<b>Age mean (SD)</b>					
	26.3 (5.6)	26.2 (5.10)	25.4 (4.7)	25.9 (5.2)	1793
<b>Parity (%)</b>					
One	41.4	37.6	47.5	43.1	772
Two	29.6	38.9	35.9	34.1	611
Three	14.4	12.3	11.3	12.7	228
Four or more (4-11)	14.6	11.2	5.3	10.2	182
<b>Caste/ethnicity (%)</b>					
Hill Brahmin/Chhetri/Janajati	50.0	53.1	56.0	53.0	951
Terai Brahmin/Chhetri/Janajati	26.4	17.6	17.5	21.0	377
Hill Dalit	9.3	16.8	19.4	14.9	267

	No experience	Has migration experience, not away	Has migration experience, currently away	Total	Total (n)
<i>Terai</i> Dalit	8.0	5.6	3.2	5.6	100
Muslim	6.3	6.9	3.9	5.5	98
<b>Residence (%)</b>					
Urban	46.4	37.3	37.0	40.8	731
Rural	53.6	62.7	63.0	59.2	1062
<b>Ecozone (%)</b>					
Hills	19.1	38.9	43.6	33.1	593
<i>Terai</i>	80.9	61.1	56.4	66.9	1200
<b>Education (%)</b>					
Never been to school	26.1	22.7	15.5	21.1	379
Some primary or primary completed	18.4	18.7	17.5	18.1	325
Some secondary	24.7	30.4	34.3	29.7	533
Secondary (SLC) or above	30.7	28.3	32.7	31.0	556
<b>Region (%)</b>					
Eastern	18.3	22.1	13.1	17.0	305
Central	40.7	19.5	20.5	28.2	505
Western	19.1	38.9	43.6	33.1	593
Mid-western	14.1	10.4	11.0	12.1	217
Far-western	7.7	9.1	11.8	9.6	173
<b>Joint family (%)</b>					
Neither	39.3	39.7	35.1	37.7	676
Respondent's or husband's parents	60.7	60.3	64.9	62.3	1117
<b>Wealth (%)</b>					
Lowest	19.7	19.5	17.7	18.9	338
Second	16.7	22.9	22.1	20.2	362
Middle	16.0	24.5	23.1	20.6	370
Higher	22.6	18.1	19.2	20.3	364
Highest	25.0	14.9	17.8	20.0	359
<b>Total (column) (%)</b>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>1793</i>
<b>Total (row) (%)</b>	<i>39.0</i>	<i>20.9</i>	<i>40.0</i>	<i>100</i>	<i>1793</i>
† n=1093 because limited to women whose spouses had migration experience only.					
‡ n=1751 due to missing values in the gender normative attitudes variable.					

**Table 6.2. Current use of a contraceptive method, partner communication, gender equitable attitudes, and household and socio-demographic characteristics of respondents, disaggregated by destination and duration of current spousal migration (n=1793).**

	Current destination				Current duration in months					
	Nepal	India	Malaysia	Persian Gulf, other	0-6	7-11	13-61	Total currently away	Total	Total (n)
<b>Current use of any contraceptive method (%)</b>										
No use	84.7	95.1	96.4	98.9	90.7	97.6	98.9	95.5	66.8	1197
Current use of any method	15.3	4.9	3.6	1.1	9.3	2.4	1.1	4.5	33.2	596
<b>Communication about family planning-related topics (%)</b>										
No recent communication	38.7	58.3	83.0	78.3	43.9	78.1	87.5	68.9	48.7	874
Any recent communication	61.3	41.7	17.0	21.7	56.1	21.9	12.5	31.1	51.3	919
<b>Frequency of communication with spouse during last/current migration † (%)</b>										
Once a week or less	21.9	14.4	27.8	25.0	22.2	19.7	21.3	23.1	22.3	244
More than once a week but less than every day	34.1	15.3	41.0	53.6	34.5	34.6	34.3	38.3	35.2	385
Every day	44.0	70.3	31.2	21.4	43.3	45.7	44.4	38.6	42.5	464
<b>Women's gender equitable attitudes ‡ (Scale range: 1-25) (%)</b>										
Less equitable (range: 1-15)	32.1	41.5	50.9	32.3	35.8	31.7	41.3	37.0	40.9	716
More equitable (range: 16-25)	67.9	58.5	49.1	67.7	64.2	68.3	58.7	63.0	59.1	1035
<b>Age mean (SD)</b>	25.9 (4.5)	25.6 (5.0)	24.5 (4.2)	25.5 (4.7)	25.4 (4.7)	25.0 (4.5)	25.7 (4.8)	25.4 (4.7)	25.9 (5.2)	1793
<b>Parity (%)</b>										
One	45.9	39.6	49.1	50.7	42.8	50.9	50.0	47.5	43.1	772
Two	42.3	34.7	33.9	35.0	39.8	34.9	32.9	35.9	34.1	611
Three	9.0	14.6	14.3	9.7	11.9	9.5	11.8	11.3	12.7	228
Four or more (4-11)	2.7	11.1	2.7	4.6	5.6	4.7	5.4	5.3	10.2	182
<b>Caste/ethnicity (%)</b>										
Hill Brahmin/Chhetri/Janajati	63.1	54.2	42.0	59.0	54.3	58.6	56.1	56.0	53.0	951

	Current destination				Current duration in months					
	Nepal	India	Malaysia	Persian Gulf, other	0-6	7-11	13-61	Total currently away	Total	Total (n)
<i>Terai</i> Brahmin/Chhetri/Janajati	25.2	14.6	38.4	9.7	19.3	17.8	15.7	17.5	21.0	377
Hill Dalit	8.1	28.5	12.5	21.4	20.8	17.8	18.9	19.4	14.9	267
<i>Terai</i> Dalit	2.7	1.4	5.4	3.4	3.7	1.2	3.9	3.2	5.6	100
Muslim	0.9	1.4	1.8	6.6	1.9	4.7	5.4	3.9	5.5	98
<b>Residence (%)</b>										
Urban	40.5	22.2	25.9	45.6	32.7	42.0	38.2	37.0	40.8	731
Rural	59.5	77.8	74.1	54.4	67.3	58.0	61.8	63.0	59.2	1062
<b>Ecozone (%)</b>										
Hills	40.5	41.7	26.8	50.7	42.4	45.6	43.6	43.6	33.1	593
<i>Terai</i>	59.5	58.3	73.2	49.3	57.6	54.4	56.4	56.4	66.9	1200
<b>Education (%)</b>										
Never been to school	10.8	20.8	19.6	13.4	15.6	8.9	19.3	15.5	21.1	379
Some primary or primary completed	12.6	26.4	21.4	14.2	17.1	17.2	18.2	17.5	18.1	325
Some secondary	30.6	38.9	36.6	32.8	33.8	40.2	31.1	34.3	29.7	533
Secondary (SLC) or above	45.9	13.9	22.3	39.6	33.5	33.7	31.4	32.7	31.0	556
<b>Region (%)</b>										
Eastern	12.6	5.6	25.9	12.3	11.9	11.8	15.0	13.1	17.0	305
Central	21.6	8.3	22.3	24.5	17.8	19.5	23.6	20.5	28.2	505
Western	40.5	41.7	26.8	50.7	42.4	45.6	43.6	43.6	33.1	593
Mid-western	6.3	11.8	17.9	10.0	9.3	13.0	11.4	11.0	12.1	217
Far-western	18.9	32.6	7.1	2.6	18.6	10.1	6.4	11.8	9.6	173
<b>Joint family (%)</b>										
Neither	31.5	43.1	28.6	35.0	37.5	30.2	35.7	35.1	37.7	676
Respondent's or husband's parents	68.5	56.9	71.4	65.0	62.5	69.8	64.3	64.9	62.3	1117
<b>Wealth (%)</b>										
Lowest	10.8	36.1	22.3	10.8	20.1	13.6	17.9	17.7	18.9	338
Second	27.9	22.9	26.8	18.5	23.4	27.2	17.9	22.1	20.2	362
Middle	23.4	23.6	24.1	22.5	21.6	16.6	28.6	23.1	20.6	370
Higher	20.7	8.3	19.6	23.1	21.2	20.7	16.4	19.2	20.3	364
Highest	17.1	9.0	7.1	25.1	13.8	21.9	19.3	17.8	20.0	359
<b>Total (column) (%)</b>	100	100	100	100	100	100	100	100	100	1793
<b>Total (row) (%)</b>	6.2	8.0	6.2	19.6	15.0	9.4	15.6	40.0	100	1793

**Table 6.3. Current use of a contraceptive method, partner communication, gender equitable attitudes, and household and socio-demographic characteristics of respondents, disaggregated by a combination of destination and duration of current spousal migration (n=1793).**

	Current destination and duration				Total currently away	Total	Total (n)
	Nepal or India, <6 months	Nepal or India, >6 months	Other int'l, <6	Other int'l, >6			
<b>Current use of any contraceptive method (%)</b>							
No use	87.4	97.5	96.8	98.6	95.5	66.8	1197
Current use of any method	12.6	2.5	3.2	1.4	4.5	33.2	596
<b>Communication about family planning-related topics (%)</b>							
No recent communication	36.2	79.0	57.9	85.1	68.9	48.7	874
Any recent communication	63.8	21.0	42.1	14.9	31.1	51.3	919
<b>Frequency of communication with spouse during last/current migration † (%)</b>							
Once a week or less	26.1	18.4	29.6	22.1	23.1	22.3	244
More than once a week but less than every day	37.9	30.5	28.4	42.1	38.3	35.2	385
Every day	36.1	51.1	42.0	35.8	38.6	42.5	464
<b>Women's gender equitable attitudes ‡ (Scale range: 1-25) (%)</b>							
Less equitable (range: 1-15)	34.7	43.2	37.9	36.5	37.0	40.9	716
More equitable (range: 16-25)	65.3	56.8	62.1	63.5	63.0	59.1	1035
<b>Age mean (SD)</b>							
	25.4 (4.5)	26.4 (5.2)	25.5 (4.9)	25.2 (4.6)	25.4 (4.7)	25.9 (5.2)	1793
<b>Parity (%)</b>							
One	41.4	44.4	45.3	51.6	47.5	43.1	772
Two	42.0	29.6	35.8	34.5	35.9	34.1	611
Three	11.5	13.6	12.6	10.3	11.3	12.7	228
Four or more (4-11)	5.2	12.3	6.3	3.5	5.3	10.2	182
<b>Caste/ethnicity (%)</b>							
Hill Brahmin/Chhetri/Janajati	53.4	67.9	55.8	54.6	56.0	53.0	951

	Current destination and duration						
	Nepal or India, <6 months	Nepal or India, >6 months	Other int'l, <6	Other int'l, >6	Total currently away	Total	Total (n)
<i>Terai</i> Brahmin/Chhetri/Janajati	23.6	9.9	11.6	17.9	17.5	21.0	377
Hill Dalit	19.5	19.8	23.2	18.2	19.4	14.9	267
<i>Terai</i> Dalit	2.3	1.2	6.3	3.3	3.2	5.6	100
Muslim	1.1	1.2	3.2	6.0	3.9	5.5	98
<b>Residence (%)</b>							
Urban	29.3	32.1	38.9	41.3	37.0	40.8	731
Rural	70.7	67.9	61.1	58.7	63.0	59.2	1062
<b>Ecozone (%)</b>							
Hills	40.2	43.2	46.3	44.6	43.6	33.1	593
<i>Terai</i>	59.8	56.8	53.7	55.4	56.4	66.9	1200
<b>Education (%)</b>							
Never been to school	16.1	17.3	14.7	14.9	15.5	21.1	379
Some primary or primary completed	18.4	24.7	14.7	16.3	17.5	18.1	325
Some secondary	32.8	40.7	35.8	33.2	34.3	29.7	533
Secondary (SLC) or above	32.8	17.3	34.7	35.6	32.7	31.0	556
<b>Region (%)</b>							
Eastern	9.8	6.2	15.8	15.5	13.1	17.0	305
Central	15.5	11.1	22.1	24.5	20.5	28.2	505
Western	40.2	43.2	46.3	44.6	43.6	33.1	593
Mid-western	6.9	14.8	13.7	11.4	11.0	12.1	217
Far-western	27.6	24.7	2.1	4.1	11.8	9.6	173
<b>Joint family (%)</b>							
Neither	35.1	44.4	42.1	31.2	35.1	37.7	676
Respondent's or husband's parents	64.9	55.6	57.9	68.8	64.9	62.3	1117
<b>Wealth (%)</b>							
Lowest	23.0	29.6	14.7	13.3	17.7	18.9	338
Second	24.7	25.9	21.1	20.4	22.1	20.2	362
Middle	25.3	19.8	14.7	25.0	23.1	20.6	370
Higher	14.9	11.1	32.6	19.6	19.2	20.3	364
Highest	12.1	13.6	16.8	21.7	17.8	20.0	359
<b>Total (column) (%)</b>	100	100	100	100	100	100	1793
<b>Total (row) (%)</b>	9.7	4.5	5.3	20.5	40.0	100	1793

**Table 6.4. Odds ratios and confidence intervals (95% confidence intervals) for binary logistic regression of husband's labor migration experience on 1) women's current use of a contraceptive method (traditional or modern) and 2) partner communication about family planning topics (n=1793).**

Independent variables of interest	Model 1 Women's current use of a contraceptive method (traditional or modern) Odds ratio (95% CI)	Model 2 Partner communication about family planning topics Odds ratio (95% CI)
<b>Migration history</b>		
No recent experience ( <i>Ref</i> )	1	1
Has migration experience, not currently away	1.07 (0.83 - 1.38)	1.29 (0.99 - 1.69)
Has migration experience, currently away	0.04*** (0.03 - 0.06)	0.27*** (0.21 - 0.33)
<b>Destination of current migration</b>		
No recent experience ( <i>Ref</i> )	1	1
Has migration experience, not currently away	1.07 (0.83 - 1.38)	1.29 (0.99 - 1.69)
Currently migrating, Nepal	0.17*** (0.10 - 0.29)	0.94 (0.62 - 1.42)
Currently migrating, India	0.05*** (0.02 - 0.10)	0.42*** (0.29 - 0.61)
Currently migrating, Malaysia	0.03*** (0.01 - 0.09)	0.12*** (0.07 - 0.20)
Currently migrating, Persian Gulf and Other	0.01*** (0.00 - 0.03)	0.16*** (0.12 - 0.22)
<b>Duration of current migration</b>		
No recent experience ( <i>Ref</i> )	1	1
Has migration experience, not currently away	1.07 (0.83 - 1.38)	1.29 (0.99 - 1.69)
Currently migrating, 0-6 months	0.10*** (0.06 - 0.15)	0.76 (0.57 - 1.01)
Currently migrating, 7-12 months	0.02*** (0.01 - 0.06)	0.17*** (0.11 - 0.25)
Currently migrating, 13-61 months	0.01*** (0.00 - 0.03)	0.08*** (0.06 - 0.12)
<b>Duration and destination by current migration status</b>		
No recent experience ( <i>Ref</i> )	1	1
Has migration experience, not currently away	1.07 (0.83 - 1.38)	1.29 (0.99 - 1.69)
Currently away, Nepal or India, <6 months	0.13*** (0.08 - 0.22)	1.05 (0.74 - 1.48)
Currently away, Nepal or India, >6 months	0.02*** (0.01 - 0.10)	0.16*** (0.09 - 0.28)
Other international, <6 months	0.03*** (0.01 - 0.10)	0.43*** (0.28 - 0.67)
Other international, >6 months	0.01*** (0.01 - 0.03)	0.10*** (0.08 - 0.14)

Independent variables of interest	Model 1 Women's current use of a contraceptive method (traditional or modern) Odds ratio (95% CI)	Model 2 Partner communication about family planning topics Odds ratio (95% CI)
<b>Frequency of spousal communication during recent/current migration</b> <sup>†</sup>		
Once a week or less ( <i>Ref</i> )	--	1
More than once a week but less than every day	--	1.79*** (1.28 - 2.49)
Every day	--	1.78*** (1.29 - 2.46)

**Note:** 95% confidence intervals in parentheses.

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05

<sup>†</sup> For this model, n=1093.



**Table 6.5. Odds ratios and 95% confidence intervals for multiple logistic regression of husband's labor migration experience on women's current use of a contraceptive method (traditional or modern), adjusting for household and socio-demographic characteristics.**

Independent variables of interest	Model 3 † No labor migration indicator in model Odds ratio (95% CI)	Model 4 † Migration history Odds ratio (95% CI)	Model 5 † Destination of current migration Odds ratio (95% CI)	Model 6 † Duration of current migration Odds ratio (95% CI)	Model 7 † Duration and destination of current migration Odds ratio (95% CI)
<b>Migration history</b>					
No recent experience ( <i>Ref</i> )		1			
Has migration experience, not currently away		0.84 (0.63 - 1.13)			
Has migration experience, currently away		0.04*** (0.02 - 0.06)			
<b>Destination of current migration</b>					
No recent experience ( <i>Ref</i> )			1		
Has migration experience, not currently away			0.84 (0.63 - 1.13)		
Currently migrating, Nepal			0.10*** (0.05 - 0.18)		
Currently migrating, India			0.04*** (0.02 - 0.08)		
Currently migrating, Malaysia			0.04*** (0.02 - 0.13)		
Currently migrating, Persian Gulf and Other			0.01*** (0.00 - 0.03)		
<b>Duration of current migration</b>					
No recent experience ( <i>Ref</i> )				1	
Has migration experience, not currently away				0.85 (0.63 - 1.13)	
Currently migrating, 0-6 months				0.06*** (0.04 - 0.09)	
Currently migrating, 7-12 months				0.02*** (0.01 - 0.07)	

Independent variables of interest	Model 3 † No labor migration indicator in model Odds ratio (95% CI)	Model 4 † Migration history Odds ratio (95% CI)	Model 5 † Destination of current migration Odds ratio (95% CI)	Model 6 † Duration of current migration Odds ratio (95% CI)	Model 7 † Duration and destination of current migration Odds ratio (95% CI)
Currently migrating, 13-61 months				0.01*** (0.00 - 0.04)	
<b>Duration and destination by current migration status</b>					
No recent experience ( <i>Ref</i> )					1
Has migration experience, not currently away					0.85 (0.63 - 1.14)
Currently away, Nepal or India, <6 months					0.08*** (0.05 - 0.13)
Currently away, Nepal or India, >6 months					0.02*** (0.01 - 0.10)
Other international, <6 months					0.02*** (0.01 - 0.07)
Other international, >6 months					0.01*** (0.01 - 0.04)
<b>Communication about FP-related topics</b>					
Any recent communication vs. no recent communication ( <i>Ref</i> )	6.86*** (5.37 - 8.75)	4.19*** (3.18 - 5.53)	3.97*** (3.00 - 5.25)	3.94*** (2.97 - 5.21)	3.91*** (2.95 - 5.18)
<b>Gender equitable attitudes</b>					
More gender equitable vs. less ( <i>Ref</i> )	1.23 (0.95 - 1.59)	1.49** (1.11 - 2.00)	1.48** (1.10 - 1.99)	1.47** (1.10 - 1.97)	1.47* (1.09 - 1.97)
<b>Age (<i>continuous</i>)</b>					
18-37	1.04** (1.01 - 1.08)	1.05** (1.02 - 1.09)	1.05** (1.02 - 1.09)	1.05** (1.02 - 1.09)	1.05** (1.02 - 1.09)
37-49	0.94 (0.80 - 1.11)	0.88 (0.75 - 1.04)	0.88 (0.74 - 1.04)	0.88 (0.75 - 1.04)	0.88 (0.75 - 1.04)
<b>Parity</b>					
One ( <i>Ref</i> )	1	1	1	1	1
Two	0.94 (0.71 - 1.24)	0.99 (0.72 - 1.36)	0.98 (0.71 - 1.35)	0.98 (0.71 - 1.35)	0.98 (0.71 - 1.34)
Three	1.16	1.01	1.02	1.00	1.01

Independent variables of interest	Model 3 † No labor migration indicator in model Odds ratio (95% CI)	Model 4 † Migration history Odds ratio (95% CI)	Model 5 † Destination of current migration Odds ratio (95% CI)	Model 6 † Duration of current migration Odds ratio (95% CI)	Model 7 † Duration and destination of current migration Odds ratio (95% CI)
Four or more (4-11)	(0.77 - 1.75) 1.67* (1.00 - 2.79)	(0.63 - 1.60) 1.21 (0.68 - 2.14)	(0.64 - 1.62) 1.27 (0.72 - 2.26)	(0.63 - 1.60) 1.21 (0.68 - 2.13)	(0.63 - 1.61) 1.23 (0.70 - 2.17)
<b>Caste/ethnic group</b>					
Hill Brahmin/Chhetri/Janajati ( <i>Ref</i> )	1	1	1	1	1
Terai Brahmin/Chhetri/Janajati	0.80 (0.57 - 1.12)	0.72 (0.49 - 1.05)	0.73 (0.50 - 1.06)	0.72 (0.49 - 1.05)	0.72 (0.49 - 1.05)
Hill Dalit	0.95 (0.67 - 1.34)	1.19 (0.79 - 1.79)	1.27 (0.83 - 1.92)	1.17 (0.78 - 1.76)	1.20 (0.79 - 1.81)
Terai Dalit	0.52* (0.28 - 0.98)	0.37** (0.19 - 0.71)	0.37** (0.19 - 0.72)	0.36** (0.19 - 0.70)	0.37** (0.19 - 0.71)
Muslim	0.30*** (0.16 - 0.57)	0.27*** (0.14 - 0.52)	0.27*** (0.14 - 0.53)	0.27*** (0.14 - 0.53)	0.27*** (0.14 - 0.53)
<b>Rural/urban residence</b>					
Rural vs. urban ( <i>Ref</i> )	1.02 (0.77 - 1.34)	1.23 (0.90 - 1.68)	1.26 (0.92 - 1.72)	1.23 (0.90 - 1.69)	1.23 (0.90 - 1.69)
<b>Ecological zone</b>					
Terai vs. hill ( <i>Ref</i> )	1.26 (0.95 - 1.67)	0.79 (0.56 - 1.10)	0.76 (0.54 - 1.06)	0.77 (0.55 - 1.09)	0.76 (0.54 - 1.07)
<b>Wealth</b>					
Lowest	1	1	1	1	1
Second	1.02 (0.70 - 1.48)	1.19 (0.78 - 1.82)	1.17 (0.76 - 1.79)	1.17 (0.77 - 1.79)	1.18 (0.77 - 1.80)
Middle	1.18 (0.82 - 1.71)	1.45 (0.94 - 2.22)	1.45 (0.95 - 2.22)	1.45 (0.95 - 2.23)	1.46 (0.95 - 2.23)
Higher	1.32 (0.89 - 1.95)	1.46 (0.94 - 2.27)	1.54 (0.99 - 2.40)	1.47 (0.95 - 2.28)	1.54 (0.99 - 2.39)
Highest	1.00 (0.64 - 1.57)	0.89 (0.54 - 1.48)	0.94 (0.57 - 1.57)	0.91 (0.55 - 1.50)	0.93 (0.56 - 1.54)
<b>Constant</b>	0.04*** (0.02 - 0.10)	0.11*** (0.04 - 0.30)	0.11*** (0.04 - 0.31)	0.11*** (0.04 - 0.31)	0.11*** (0.04 - 0.32)

**Note:** 95% confidence intervals in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. † n=1751 due to missing values in the gender normative attitudes variable.

**Table 6.6. Odds ratios and 95% confidence intervals for multiple logistic regression of husband's labor migration experience on partner communication about family planning topics adjusted for household and socio-demographic characteristics.**

Independent variables of interest	Model 8 † Migration history Odds ratio (95% CI)	Model 9 † Destination of current migration Odds ratio (95% CI)	Model 10 † Duration of current migration Odds ratio (95% CI)	Model 11 † Duration and destination of current migration Odds ratio (95% CI)
<b>Migration history</b>				
No recent experience ( <i>Ref</i> )	1			
Has migration experience, not currently away	1.07 (0.80 - 1.43)			
Has migration experience, currently away	0.19*** (0.14 - 0.24)			
<b>Destination of current migration</b>				
No recent experience ( <i>Ref</i> )		1		
Has migration experience, not currently away		1.07 (0.80 - 1.42)		
Currently migrating, Nepal		0.70 (0.45 - 1.09)		
Currently migrating, India		0.30*** (0.20 - 0.45)		
Currently migrating, Malaysia		0.09*** (0.05 - 0.15)		
Currently migrating, Persian Gulf and Other		0.11*** (0.08 - 0.15)		
<b>Duration of current migration</b>				
No recent experience ( <i>Ref</i> )			1	
Has migration experience, not currently away			1.05 (0.79 - 1.41)	
Currently migrating, 0-6 months			0.55*** (0.40 - 0.75)	
Currently migrating, 7-12 months			0.11*** (0.07 - 0.16)	
Currently migrating, 13-61 months			0.06*** (0.04 - 0.08)	

Independent variables of interest	Model 8 † Migration history Odds ratio (95% CI)	Model 9 † Destination of current migration Odds ratio (95% CI)	Model 10 † Duration of current migration Odds ratio (95% CI)	Model 11 † Duration and destination of current migration Odds ratio (95% CI)
<b>Duration and destination by current migration status</b>				
No recent experience ( <i>Ref</i> )				1
Has migration experience, not currently away				1.06 (0.79 - 1.41)
Currently away, Nepal or India, <6 months				0.77 (0.53 - 1.12)
Currently away, Nepal or India, >6 months				0.11*** (0.06 - 0.20)
Other international, <6 months				0.30*** (0.19 - 0.48)
Other international, >6 months				0.07*** (0.05 - 0.09)
<b>Gender equitable attitudes</b>				
More gender equitable vs. less ( <i>Ref</i> )	1.17 (0.92 - 1.49)	1.17 (0.91 - 1.49)	1.14 (0.89 - 1.46)	1.14 (0.89 - 1.47)
<b>Age (<i>continuous</i>)</b>				
18-37	0.97 (0.95 - 1.00)	0.97 (0.94 - 1.00)	0.98 (0.95 - 1.01)	0.98 (0.95 - 1.01)
37-49	0.87 (0.75 - 1.00)	0.87 (0.76 - 1.01)	0.87 (0.75 - 1.01)	0.87 (0.75 - 1.00)
<b>Parity</b>				
One ( <i>Ref</i> )	1	1	1	1
Two	1.68*** (1.29 - 2.17)	1.67*** (1.28 - 2.18)	1.62*** (1.23 - 2.12)	1.62*** (1.23 - 2.12)
Three	1.71** (1.16 - 2.51)	1.75** (1.18 - 2.60)	1.66* (1.11 - 2.48)	1.67* (1.12 - 2.50)
Four or more (4-11)	2.16** (1.32 - 3.52)	2.20** (1.34 - 3.61)	2.08** (1.26 - 3.45)	2.12** (1.28 - 3.51)
<b>Caste/ethnic group</b>				
Hill Brahmin/Chhetri/Janajati ( <i>Ref</i> )	1	1	1	1
Terai Brahmin/Chhetri/Janajati	1.15	1.19	1.15	1.17

Independent variables of interest	Model 8 † Migration history Odds ratio (95% CI)	Model 9 † Destination of current migration Odds ratio (95% CI)	Model 10 † Duration of current migration Odds ratio (95% CI)	Model 11 † Duration and destination of current migration Odds ratio (95% CI)
Hill Dalit	(0.84 - 1.58) 0.78	(0.86 - 1.65) 0.85	(0.83 - 1.59) 0.76	(0.84 - 1.62) 0.77
<i>Terai</i> Dalit	(0.57 - 1.08) 0.34***	(0.61 - 1.18) 0.37***	(0.54 - 1.06) 0.34***	(0.55 - 1.08) 0.36***
Muslim	(0.20 - 0.58) 1.28	(0.22 - 0.63) 1.49	(0.20 - 0.58) 1.48	(0.21 - 0.61) 1.55
	(0.75 - 2.18)	(0.86 - 2.60)	(0.85 - 2.59)	(0.88 - 2.72)
<b>Rural/urban residence</b>				
Rural vs. urban ( <i>Ref</i> )	1.40** (1.09 - 1.81)	1.45** (1.11 - 1.89)	1.41* (1.08 - 1.84)	1.41* (1.08 - 1.84)
<b>Ecological zone</b>				
<i>Terai</i> vs. hill ( <i>Ref</i> )	0.45*** (0.35 - 0.60)	0.41*** (0.31 - 0.55)	0.40*** (0.30 - 0.54)	0.39*** (0.29 - 0.52)
<b>Wealth</b>				
Lowest ( <i>Ref</i> )	1	1	1	1
Second	1.23 (0.88 - 1.73)	1.24 (0.88 - 1.75)	1.22 (0.86 - 1.74)	1.27 (0.89 - 1.81)
Middle	1.52* (1.07 - 2.14)	1.62** (1.14 - 2.30)	1.70** (1.18 - 2.44)	1.69** (1.18 - 2.43)
Higher	1.38 (0.96 - 1.98)	1.55* (1.07 - 2.25)	1.39 (0.95 - 2.01)	1.51* (1.04 - 2.21)
Highest	1.14 (0.75 - 1.72)	1.30 (0.85 - 2.00)	1.22 (0.79 - 1.88)	1.31 (0.85 - 2.02)
<b>Constant</b>	3.15** (1.39 - 7.17)	3.34** (1.44 - 7.74)	3.22** (1.37 - 7.55)	3.28** (1.39 - 7.69)

**Note:** 95% confidence intervals in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. † n=1751 due to missing values in the gender normative attitudes variable.

**Table 6.7. Odds ratios and 95% confidence intervals for multiple logistic regression of husband's labor migration experience on partner communication about family planning topics adjusted for household and socio-demographic characteristics and frequency of communication during most recent/current migration.**

Independent variables of interest	Model 12 ‡ Migration history & Freq of comm  Odds ratio (95% CI)	Model 13 ‡ Destination of current migration & Freq of comm  Odds ratio (95% CI)	Model 14 ‡ Duration of current migration & Freq of comm  Odds ratio (95% CI)	Model 15 ‡ Duration and destination of current migration & Freq of comm  Odds ratio (95% CI)
<b>Migration history</b>				
No recent experience ( <i>Ref</i> )	--			
Has migration experience, not currently away	1 ( <i>Ref</i> )			
Has migration experience, currently away	0.18*** (0.13 - 0.24)			
<b>Destination of current migration</b>				
No recent experience ( <i>Ref</i> )		--		
Has migration experience, not currently away		1 ( <i>Ref</i> )		
Currently migrating, Nepal		0.67 (0.42 - 1.08)		
Currently migrating, India		0.27*** (0.18 - 0.42)		
Currently migrating, Malaysia		0.08*** (0.04 - 0.14)		
Currently migrating, Persian Gulf and Other		0.10*** (0.07 - 0.15)		
<b>Duration of current migration</b>				
No recent experience ( <i>Ref</i> )			--	
Has migration experience, not currently away			1 ( <i>Ref</i> )	
Currently migrating, 0-6 months			0.52*** (0.36 - 0.73)	
Currently migrating, 7-12 months			0.10*** (0.07 - 0.16)	

Independent variables of interest	Model 12 ‡ Migration history & Freq of comm  Odds ratio (95% CI)	Model 13 ‡ Destination of current migration & Freq of comm  Odds ratio (95% CI)	Model 14 ‡ Duration of current migration & Freq of comm  Odds ratio (95% CI)	Model 15 ‡ Duration and destination of current migration & Freq of comm  Odds ratio (95% CI)
Currently migrating, 13-61 months			0.05*** (0.03 - 0.08)	
<b>Duration and destination by current migration status</b>				
No recent experience ( <i>Ref</i> )				--
Has migration experience, not currently away				1 ( <i>Ref</i> )
Currently away, Nepal or India, <6 months				0.72 (0.48 - 1.08)
Currently away, Nepal or India, >6 months				0.10*** (0.06 - 0.19)
Other international, <6 months				0.29*** (0.18 - 0.47)
Other international, >6 months				0.06*** (0.04 - 0.09)
<b>Frequency of spousal communication during recent/current migration</b>				
Once a week or less ( <i>Ref</i> )	1	1	1	1
More than once a week but less than every day	1.89** (1.29 - 2.77)	2.05*** (1.38 - 3.05)	1.95** (1.30 - 2.92)	1.95** (1.30 - 2.93)
Every day	1.97*** (1.34 - 2.89)	1.58* (1.06 - 2.36)	1.74** (1.16 - 2.61)	1.64* (1.09 - 2.47)
<b>Gender equitable attitudes</b>				
More gender equitable vs. less ( <i>Ref</i> )	1.29 (0.94 - 1.77)	1.26 (0.91 - 1.75)	1.23 (0.88 - 1.72)	1.24 (0.88 - 1.74)
<b>Age (<i>continuous</i>)</b>				
18-37	0.98 (0.94 - 1.02)	0.97 (0.93 - 1.01)	0.98 (0.94 - 1.02)	0.98 (0.94 - 1.02)
37-49	0.88 (0.69 - 1.14)	0.89 (0.69 - 1.15)	0.89 (0.69 - 1.16)	0.88 (0.68 - 1.14)



Independent variables of interest	Model 12 ‡ Migration history & Freq of comm  Odds ratio (95% CI)	Model 13 ‡ Destination of current migration & Freq of comm  Odds ratio (95% CI)	Model 14 ‡ Duration of current migration & Freq of comm  Odds ratio (95% CI)	Model 15 ‡ Duration and destination of current migration & Freq of comm  Odds ratio (95% CI)
<b>Parity</b>				
One ( <i>Ref</i> )	1	1	1	1
Two	1.74** (1.25 - 2.43)	1.76** (1.24 - 2.49)	1.66** (1.16 - 2.37)	1.66** (1.16 - 2.37)
Three	1.51 (0.89 - 2.56)	1.57 (0.91 - 2.71)	1.40 (0.79 - 2.46)	1.40 (0.79 - 2.46)
Four or more (4-11)	2.44** (1.24 - 4.82)	2.51** (1.25 - 5.03)	2.31* (1.12 - 4.74)	2.33* (1.14 - 4.78)
<b>Caste/ethnic group</b>				
Hill Brahmin/Chhetri/Janajati ( <i>Ref</i> )	1	1	1	1
Terai Brahmin/Chhetri/Janajati	1.06 (0.67 - 1.66)	1.11 (0.69 - 1.78)	1.02 (0.64 - 1.65)	1.06 (0.65 - 1.71)
Hill Dalit	0.84 (0.57 - 1.23)	0.93 (0.63 - 1.39)	0.81 (0.53 - 1.22)	0.83 (0.55 - 1.26)
Terai Dalit	0.40* (0.17 - 0.94)	0.45 (0.19 - 1.08)	0.37* (0.16 - 0.88)	0.41* (0.17 - 0.99)
Muslim	0.89 (0.42 - 1.87)	1.06 (0.48 - 2.32)	1.06 (0.48 - 2.34)	1.14 (0.51 - 2.54)
<b>Rural/urban residence</b>				
Rural vs. urban ( <i>Ref</i> )	1.29 (0.92 - 1.79)	1.36 (0.96 - 1.93)	1.30 (0.91 - 1.86)	1.28 (0.90 - 1.83)
<b>Ecological zone</b>				
Terai vs. hill ( <i>Ref</i> )	0.55*** (0.39 - 0.77)	0.47*** (0.33 - 0.68)	0.46*** (0.32 - 0.67)	0.43*** (0.30 - 0.63)
<b>Wealth</b>				
Lowest ( <i>Ref</i> )	1	1	1	1
Second	1.11 (0.72 - 1.72)	1.17 (0.74 - 1.83)	1.11 (0.70 - 1.77)	1.20 (0.76 - 1.92)
Middle	1.12 (0.72 - 1.74)	1.28 (0.81 - 2.03)	1.29 (0.81 - 2.07)	1.33 (0.83 - 2.13)
Higher	0.96	1.25	0.98	1.17

Independent variables of interest	Model 12 ‡	Model 13 ‡	Model 14 ‡	Model 15 ‡
	Migration history & Freq of comm	Destination of current migration & Freq of comm	Duration of current migration & Freq of comm	Duration and destination of current migration & Freq of comm
	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)	Odds ratio (95% CI)
Highest	(0.59 - 1.56)	(0.74 - 2.09)	(0.58 - 1.65)	(0.69 - 1.99)
	0.70	1.00	0.83	0.98
	(0.39 - 1.27)	(0.54 - 1.87)	(0.44 - 1.55)	(0.52 - 1.86)
<b>Constant</b>	1.97	2.39	2.12	2.22
	(0.65 - 5.93)	(0.76 - 7.51)	(0.67 - 6.78)	(0.69 - 7.14)

**Note:** 95% confidence intervals in parentheses. \*\*\* p<0.001, \*\* p<0.01, \* p<0.05. † n=1751 due to missing values in the gender normative attitudes variable. ‡ n=1071 due to missing values in the gender normative attitudes variable.

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## **Chapter Seven: Discussion and conclusions**

In the following sections of this concluding chapter, the research findings from this dissertation's three manuscripts are briefly summarized (Chapters 4–6). These results are then drawn on to speak to the ways in which this body of work can and should be used to inform future research agendas and programmatic and policy decisions.

### **Contributions of this research**

Amidst government policies that facilitate labor migration and a national economy dependent on the remittances sent predominantly by men working away from home (Adhikari, 2006; IOM, 2015), this dissertation aimed to examine the intimate economies (Wilson, 2004) of labor migration through an exploration of the ways in which spousal labor migration affects women's reproductive lives. Semi-structured qualitative interviews with twenty women illustrated unique and complex meanings of reproduction for women "left behind" by migration. In their spouses' absences, women emphasized their responsibility over "reproductive work," including childrearing and future childbearing. Some women drew clear and explicit links between their partners' migration trajectories and their decisions about whether or what type of family planning method to use. Finally, a husband's absence also led to increased surveillance over women's bodies and sexual practices amidst fears and suspicions of infidelity. In this way, the concrete effects of global economic structures on women's intimate relations are made manifest by the ways in which a husband's labor migration reorients women's reproductive roles and family planning practices.

In settings wherein spousal labor migration is implicated in women's intimate, reproductive lives, it was also essential to investigate how such migration affected the intimate interactions women had with their partners. The transnational social fields within which women "left behind" navigate their daily lives are maintained and structured through communication with migrant spouses living and working in different places. Such communication, as Chapter 5 demonstrates, is an important component of women's daily lives, and evidence from semi-structured interviews indicated that most women spoke frequently with their absent, migrating spouses. For some women, these conversations were oriented around the schedules of their husbands. Conversations often focused on current children, but women reported communicating about a myriad of topics ranging from financial concerns to mobility to agricultural work. In light of the demonstrated relationship between partner communication and improved women's health outcomes like increased use of a contraceptive method (Bawah, 2002; Chapagain, 2005; Hameed et al., 2014; Jennings & Pierotti, 2016; Link, 2011; Pratley, 2016; Yue et al., 2010), women were also asked about conversations concerning future children and family planning use. For most women, migration played an instrumental role in whether they talked with their spouses about such reproductive topics. Most women emphasized that they would delay such conversations until their husbands returned. Current priorities and living children, rather than future reproductive decisions, took priority. Fewer women, in contrast, described communicating with their partners about family planning prior to their return. Such evidence demonstrated the multiple ways in which women's daily lives and intimate relationships – including whether, when, and what conversations took place – were shaped by their husbands' migration.

Through a focus on the transnational social fields of women “left behind” by labor migration in Nepal, these first two qualitative manuscripts demonstrate important relationships between husbands’ labor migration and women’s reproductive lives and intimate relationships with their spouses. Within this context and in light of the descriptive evidence of low rates of current contraceptive use among women living separately from their spouses (Ban et al., 2012; Khanal et al., 2013), the final manuscript aimed to investigate quantitatively the relationship between spousal labor migration and 1) reproductive practices like contraceptive use and 2) partner communication about family planning. Through multivariate analyses adjusted for potential confounding household and socio-demographic characteristics, women whose husbands were migrating had significantly lower odds of currently using any type of contraceptive method as compared to women whose husbands had no recent migration experience. Furthermore, labor migration experience also appeared to confound the established positive relationship between partner communication about family planning and contraceptive use. Women whose husbands were migrating also had significantly reduced odds of reporting partner communication about family planning topics after adjusting for relevant household and socio-demographic characteristics. These findings complemented and supported qualitative evidence presented in Chapter 5. Women’s husbands who were migrating to more distant destinations or who had been away for more extended periods of time had greater reductions in the odds of both currently using a contraceptive method and having communicated with their partner about family planning topics as compared to women whose husbands were migrating to more proximate locations or who had been away for shorter periods of time. These findings build on results from Chapters 4 and 5 to

shed light on the concrete ways in which a spouse's labor migration can impact women's reproductive lives and intimate relationships. Furthermore, they demand further attention be paid to labor migration in reproductive health research and program and policy development.

## **Theoretical contributions**

### ***The collision between development and globalization***

Anthropological studies of public health and development efforts are critical of top-down approaches (Justice, 1989) that ignore people's lived experiences (Pigg, 2005; Pigg, 1993) or assume that the frameworks within which "gender equity" or "reproductive rights" have emerged are universal (Brunson, 2016). Development projects exist within a larger setting of globalization wherein social and economic structures become intimately linked across space and time (Appadurai, 1996; Browner, 2011; Giddens, 1990; Pigg, 2005). As a result, such critiques of development carry and take on increased weight in areas where globalization is fundamentally restructuring not only the embodied experiences of people, but shifting where they live and work, what they do to maintain and sustain livelihoods for themselves and their families, how they interact with their families, gender dynamics, and what decisions they make in their reproductive lives.

Theories of migration, such as transnationalism or intimate economies, posit frameworks through which we can begin to understand the role of globalization in shifting women's reproductive lives and the role for public health in addressing reproductive health moving forward (Levitt & Schiller, 2004; Padilla et al., 2007; Wilson, 2004). Through an intentional and thoughtful engagement with such theories of migration

in the public health field, programs have the opportunity to move beyond assumptions about reproduction and intimate relations to acknowledge the ways in which the lives of an increasingly large number of individuals living in transnational spaces are affected by a partner's migration and the implications such effects may have on healthcare needs.

*Intimate economies of labor migration and the womanhood=reproduction narrative*

This dissertation highlights the concrete effects – both qualitatively and quantitatively – of labor migration on women's reproductive lives. Within the context of shifting practices, reproduction was often reinforced as a women's responsibility. As men migrated for employment and in search of economic opportunities to improve the future of themselves and their families, women's responsibilities over children and reproduction in the absence of their husbands were reinforced. The association between womanhood and reproduction has been examined and critiqued by feminist anthropologists and anthropologists of reproduction (Ginsburg, 1995; Ginsburg & Rapp, 1991; Martin, 2001; Shilling, 2003). This dissertation extends such analyses by illustrating, using the intimate economies framework (Wilson, 2004), how labor migration itself – influenced by economic needs, lack of employment opportunities, and global and national economic policies that push and pull men in Nepal to travel for work (GON, 2014; Poertner et al., 2011; Sherpa, 2010; Sijapati & Limbu, 2012; Valentin, 2012) – is inextricably bound with such gendered constructions of reproduction. These findings also indicate that as researchers in public health seek to conceptualize and understand reproduction, they must

not ignore the influence of labor migration on the transnational social fields within which people live.

### *Transnational social fields and varied experiences of migration*

Such an integration of theories of migration and globalization into public health research could have concrete implications for how research on migration is performed. Restructuring migration as an experience that does not necessarily only influence those migrating but also structures and reinforces the transnational social fields within in which they, their families, and communities exist would serve to encourage research on migrant couples, migrant families, or migrant communities (Cohen, 2001; Hannaford, 2015; Hirsch, 2003; Pauli, 2008; Smith-Estelle & Gruskin, 2003; Sunam, 2014; Toyota et al., 2007). Reproductive health research remains slow to adopt such approaches to and understandings of how labor migration intersects with global processes (which facilitate mobility and travel) to influence individuals, couples, families, and communities in places like Nepal. While this dissertation filled gaps in knowledge by focusing exclusively on women's perspectives as "left behind" spouses (Hannaford, 2015), further research should incorporate women's partners as well as other members of households and communities affected by such widespread migration to gain a more nuanced and complex understanding of the many ways in which economic processes leading, pushing, and pulling men to travel for work have restructured local reproductive lives. Multi-sited studies that investigate the experiences of both migrating and non-migrating partners could also contribute to our understanding of transformations in gender dynamics that occur simultaneously in migrants' destinations and places of origin.

Women's reproductive lives are influenced not only by labor migration or shifts in intimate relationships, but also by the household, community, and socio-cultural contexts within which reproductive projects take place over time (Brunson, 2016; MOHP et al., 2012; Raj et al., 2013; Sharan & Valente, 2002; Sharma et al., 2011; Yue et al., 2010). Brunson (2016)'s recommendation that reproductive decisions and lives be understood as projects – acknowledging the process by which they take place over time as well as the potential space for autonomy within existing social structures – may be an important step forward for researchers working on reproductive health in areas so widely affected by labor migration and spousal separation.

## **Research and policy implications**

### ***A spouse's labor migration is an essential component of women's social locations***

Transnational social fields, as outlined in Chapter 2, build on Bourdieu's conceptualization of social fields that highlight the unique social locations within which individuals navigate (Gartaula et al., 2012; Glick-Schiller et al., 1992; Hirsch, 2003; Pessar & Mahler, 2003). Migration experience constitutes an essential component of these social locations. Although the field of public health often identifies the importance of socio-demographic characteristics like age and wealth, household gender dynamics such as access to education and employment, partner communication, or gender attitudes in women's reproductive health outcomes (Namasivayam et al., 2012; Pratley, 2016; Upadhyay et al., 2014), these studies must acknowledge other aspects of the social locations within which women's reproductive lives exist. Migration experience is just one



of the factors that intersects with a myriad of other identities such as age, caste/ethnicity, rural/urban status, and education, among others. Within an increasingly globalized world wherein mobility and migration are more feasible and accessible, public health researchers must acknowledge the role of migration and the fundamental changes such mobility will have on our understandings of families, couples, reproduction, reproductive health, and reproductive healthcare service delivery. Shifts in how reproduction is experienced and talked about as well as family planning practices mark just one way in which migration is implicated in health outcomes prioritized in the field of public health.

### *Improving programs through an understanding of transnational social fields*

In addition to the theoretical and research implications of this study, these findings also have the potential to reshape how public health programs focused on reproductive health and family planning are designed in places like Nepal where widespread labor migration is leading to remarkable changes in household and community composition (Gartaula, 2013; Gartaula et al., 2012; GON, 2014; Kaspar, 2006; Maharjan et al., 2013; Tuladhar, 2014). Suspicions of infidelity emerged powerfully in qualitative interviews, as women actively distanced themselves from practices that would increase spousal, household, or community suspicion. Such concerns were perpetuated in health facilities as well as in communities and in local media, as women linked use of family planning services with infidelity if their spouses were away. It will be essential for public health programs to remain sensitive to the influence of such narratives.

As shared by women in semi-structured interviews and clearly shown in quantitative analyses of women's responses, partner communication took on new meanings and characteristics during periods of separation from one's spouse. As a result, public health programming that assumes partners are living together and encourages partner communication about topics like family planning must acknowledge how such messages may fail to apply to the daily lives of women whose husbands are migrating for work. mHealth interventions mark one approach that could prove fruitful for future programs, but public health efforts must continue to examine the effects of partner communication on reproductive health outcomes among labor migrant couples in order to determine how best to design effective programs.

### *Rethinking priorities through improved metrics*

There are tangible and practical changes that can take place to ensure that labor migration effects can be incorporated into the design of public health programs, research agendas, and policy. In Nepal, the last five years have marked the debut of studies highlighting the role of spousal separation in fertility trends and contraceptive use patterns (Ban et al., 2012; CREHPA, 2012; Khanal et al., 2013), but greater attention to the implications such temporary migration has for how metrics are and should be defined, measured, and used to inform governmental policies is needed. For example, essentialist definitions of migration that fail to acknowledge the complexities of migration trajectories could be complicated by more thoughtful and detailed analyses that disaggregate by factors like migration history, destination, or duration.

There is also an urgent need for existing quantitative public health metrics to be amenable to change and adaptable to differences in women's reproductive needs and lives. The need for family planning metrics that do not define unmet need *for* women, for example, has been well-documented (Ban et al., 2012; Bradley & Casterline, 2014; Casterline & Sinding, 2000; Shrestha et al., 2012; Stash, 1999), and findings from associations with labor migration experience in Nepal (Chapters 4 and 6) support the development of improved measures that incorporate complexity into public health measures to make them more applicable to women's lives. This includes not only improvements to reproductive health measures, but also the incorporation of more rigorous migration indicators in household surveys (de Brauw & Carletto, 2012; Schenker et al., 2014). For example, studies over time and at different time points during a husband's migration would improve understandings of the linkages between labor migration, intimate relationships between spouses, and reproductive lives and projects undertaken in Nepal and elsewhere.

## **Strengths and limitations**

This dissertation builds on gaps in previous public health and social science research by focusing on the intersections of labor migration, household gender dynamics, and reproductive health. Complicating traditional research focused on the migrant, this dissertation incorporates migration theory on transnational social fields to highlight the need for studies on how migration is experienced by those "left behind," such as married women whose husbands are migrating for work. The strengths of this dissertation research are the product of the study design and analyses performed. The use of multiple

methods, including both qualitative and quantitative data, allowed the student investigator to use multiple lenses to investigate the experiences of women whose husbands have labor migration experience in Nepal. Through an iterative data collection and analysis process, the emerging constructs and themes from the qualitative data were able to inform initial questions asked of the quantitative data during the exploratory data analysis phase. By working on each portion of the study concurrently, the qualitative and quantitative evidence complemented each other in the analyses. The qualitative work gave context to the descriptive statistics and associations identified in the quantitative sample, while the quantitative data was examined to determine whether the relationships that emerged in semi-structured interviews held when measured quantitatively. In addition, the two forms of evidence used in this dissertation were used to examine the intersections of labor migration and women's intimate and reproductive lives in different ways. The qualitative study provided information on the context of women's lives and the processes through which their partners' migration shifted household responsibilities, partner interactions, and reproductive plans. The quantitative data analysis drew on these findings to focus on spousal labor migration experience and its associations with partner communication about family planning and family planning practices specifically.

Both studies benefited from existing public health infrastructure in Nepal and had sufficient funding for data collection, analysis, and dissemination phases. In the qualitative study, the use of follow-up interviews established rapport and built relationships between the interviewer and the participants that improved the quality of the interviews and the data collected. Collaborating with local health workers and working with Nepali research assistants provided the student investigator with increased access to

women in Dhading district for recruitment. The quantitative study also worked with an experienced Nepal-based research firm with skills in public health research and evaluation.

The large sample size for the quantitative study enabled the student investigator to examine variations in migration experience that are not necessarily possible in smaller data sets or in samples where labor migration experience is not as common. This large sample size facilitated analyses focused on labor migration experience as a key variable of interest. The qualitative study was similarly designed to capture variation in labor migration experience during the sampling phase, which led to a final sample of twenty participants whose husbands had diverse migration histories and trajectories.

At the same time, limitations to this dissertation affect the conclusions that can be drawn and the generalizability of the findings to other populations. The quantitative study was cross-sectional, preventing claims of causality or temporal order in associations. In addition, the baseline survey was not designed to be representative of all Nepalis. The limited sampling criteria, which randomly sampled married women of reproductive age with a child under five years of age living in 12 districts in Nepal, restricted generalizability of the findings. The associations described in this dissertation in Chapter 6 are generalizable only to married women of reproductive age with children under five not using a permanent contraceptive method and living in these twelve districts. In contrast, the findings from the qualitative study detailed in Chapters 4 and 5 were not intended to be generalizable, instead exploring women's lived experiences in an in-depth way to shed light on a particular lived experience that has failed to be 1) examined robustly in the literature and 2) addressed in program and policy development. This

qualitative study, although including women whose husbands had diverse migration histories, did not draw comparisons in analyses on other aspects of their social locations like caste/ethnic group or rural/urban residence. Future research is needed to explore how labor migration intersects with these other components of women's identities in daily life.

Finally, this dissertation's intentional focus on women's lived experiences of migration fails to incorporate multiple perspectives on migration. Although this study was interested in *women's* reproductive lives and intimate relations, the voices of their migrating spouses or other household members could be perceived as being conspicuously absent. In light of this potential limitation, is important to note the substantial lack of attention that has been paid to those "left behind" in the migration literature (Hannaford, 2015). However, future research that integrates spouses' voices both at home and while migrating as well as the perspectives of other household and community members could shed a more complex light on the ways in which labor migration affects intimate relationships between partners and is implicated in reproductive lives of people in Nepal.

## Conclusion

Falling at the intersections of men's labor migration, household gender dynamics, and women's reproductive lives or projects, this dissertation draws on sociological, anthropological, demographic, and public health research to explore how the reproductive lives of women "left behind" by migration in Nepal evolve within transnational spaces that affect not only the role of reproduction in women's lives, but also how they communicate with their spouses about such topics and their family planning practices. It

is within the context of labor migration and spousal separation that women redefine not only their roles, but also the extent to which they communicate with their spouses and the content of such conversations. Identified qualitatively and quantitatively, women's reports of their husbands' labor migration had tangible effects on the role of reproduction in their daily lives and played a major role in family planning practices and gender dynamics within the household. Qualitative research in Dhading district offered the opportunity to examine the lived experience of migration in Nepal, while analyses of baseline findings from a cross-sectional survey administered in 12 districts across the country not only facilitated the examination of emergent qualitative findings on a larger scale, but also identified essential areas for further investigation and methodological improvement. Together, these methodological approaches and findings build on one another to identify the extent to which women's reproductive lives are indeed transnational and influenced by household gender and power dynamics that are challenged and perpetuated through partner interactions across time, separation, and space.

## Postscript: Deconstructing “dissemination”

*“Deconstructing the processes of knowledge creation, acquisition and dissemination is crucial to research endeavours as they are sites where the dynamics of social inclusion and exclusion are (re)enacted” (Dominelli, 2005, p. 17).*

An important component of acknowledging the critiques of top-down public health development programs is reorienting what forms of knowledge are prioritized (Dominelli, 2005). As discussed in Chapter 2, being attuned to the unique aspects of women’s lives is essential, but researchers removed from their “objects of study” often act to reinforce the prioritization of certain forms of knowledge over others and therefore fail to incorporate local priorities into program and policy (Bastia, 2014; Dutta & Basnyat, 2008). International research dissemination events can be seen as one example of a space wherein power inequalities are perpetuated and certain forms of knowledge – often defined and disseminated by international, often western, development organizations – are prioritized. In this postscript, I describe my attempts to deconstruct “dissemination” in my own dissertation research.

This dissertation is the culmination of more than two years working as a research assistant in conjunction with my advisor, Dr. Carol Underwood, on a USAID-funded social and behavior change communication (SBCC) family planning project in Nepal. In conjunction with my work for the HC3 Project in Nepal and in order to collect the qualitative data analyzed in this dissertation, I spent nearly five months in Nepal, primarily in Kathmandu and Dhading district, working with the Nepal team at both the administrative and district levels. Integral to my dissertation project, and imperative for me as an independent investigator, was that the information I gathered in both my qualitative and quantitative explorations be the product of not only discussions with my



fellow researchers in the United States, but also with colleagues, researchers, and public health practitioners based in Nepal.

In fall of 2016, I had the opportunity to return to Nepal to share my preliminary ideas with my colleagues. The timing of this visit was intentional; in order to, as Dominelli (2005, p. 17) wrote, “deconstruct knowledge construction,” we must actively challenge the prevailing power dynamics that reinforce constructions of “knowledge” about people’s lives that fail to take into account others’ perspectives. It was therefore vital that I return to Nepal in the midst of data analysis to reflect on my findings and discuss them with colleagues working programmatically, in research, and in the districts where the data I was analyzing had been gathered.

I took a multi-level approach to “disseminating” my preliminary ideas in a workshop-style format: within the HC3 team in Kathmandu, with other organizations working in family planning in Nepal, with fellow researchers and students, and with the HC3 team and local health officers at the district level. I spoke with the Nepal HC3 team during team meetings and presented at progress meetings with partners working in family planning for other development programs in Nepal. I workshopped three small presentations, with structured discussions built in, with students, faculty, and research partners at the Institute of Medicine in Kathmandu. I also shared my preliminary findings with local officials at the district health office in Dhading. Finally, I talked both formally and informally with the HC3 Dhading district coordinator and peer facilitators in Dhading about my major themes. Speaking in Nepali (and some English), I consulted with the women who had been so instrumental in the recruitment for my qualitative study about their own experiences and thoughts on the intersections of migration, gender

dynamics, and reproductive decision-making in Dhading. At each of these levels, individuals evoked different ideas or considerations: how fertility awareness intersects with family planning considerations upon the husband's arrival, the issues with how to measure contraceptive use for this population, the role of "cultural taboos," or ways that the findings could affect family planning counseling. I took careful notes and reflections throughout this trip to ensure that these considerations were adequately and appropriately – and if not, why not – addressed in my dissertation. It was through such conversations that I was able to distill the most relevant and compelling components of my dissertation research.

This opportunity to involve colleagues in my analysis process, those who had been so supportive and instrumental in the successful completion of data collection for my dissertation, offered me the opportunity to take a first step towards challenging the ways in which inequitable power dynamics frequently restrict some – rather than others – from being involved in knowledge creation. My approach was not without its challenges; workshopping preliminary themes and failing to present "dissemination findings" as final, established knowledge was not necessarily the usual way such meetings were run. Nevertheless, this process was invaluable to me as I begin my career as an independent investigator. I am thankful for the support from the Health, Behavior and Society Department as well as the Center for Qualitative Studies in Health and Medicine at Hopkins for the financial support that made this possible.

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# Appendix 1. Supporting documents

## Qualitative interview guide



Approved: 14Jan16 IRB No.: 00006884

#	Core Questions
	<p><i>Domain #1: These questions will be posed during the first interview. The purpose of questions in this section is to examine roles and shifts in household functioning during women's partner's migration. In this section, the interviewer will explore with the participant how the household functions on a daily basis, including her roles within the household. The details of the spouse's migration and the effect of the partner's absence on the household will also be examined. This domain and associated questions/probes will provide a space for participants to reflect on their household and changes related to gender dynamics within the household as a result of their partner's migration. How do functions of and roles in the household shift during periods of migration? How do they stay the same? Does migration increase mutuality, cooperation, or interdependence in household decisions, does it lead to more tension, or does it shift partners' interactions in another way? This domain also explores how women interact with extended family, friends, and others in the community and the impact of their partner's migration on these interactions. How do women's interactions with their extended families and local communities change as a result of their partner's mobility?</i></p> <p><i>[This description is for the research assistant only and will not be read to participants.]</i></p>
1.	<p><b>Can you tell me about your family?</b></p> <ul style="list-style-type: none"> <li>How many children do you have? How old are they? How long have you been married? How long have you lived in this community? How close does your natal family live? How close does your husband's family live?</li> <li>Who spends most nights in your home? Who slept in your house last night? <i>[Note to research assistant: If says husband away, explain that we will talk about this later in the interview.]</i></li> <li>Do you have a mobile phone?</li> </ul> <p><b>Please walk me through your typical day.</b></p> <ul style="list-style-type: none"> <li>What takes up most of your day? <ul style="list-style-type: none"> <li>Who participates in cooking? Cleaning? Other household chores? Childcare? Agricultural work? Work outside the home? Attendance at community groups/meetings?</li> </ul> </li> <li>What does your husband do?</li> <li>Are there some days that differ? For example, how do market days differ? Festivals/holidays? <i>[If participant has children]:</i> What about days when the children are/are not in school?</li> <li>Do you have any source of income separate from your husband?</li> </ul>
2.	<p><b>During your typical day, who decides what to cook?</b></p> <ul style="list-style-type: none"> <li>How do you decide what to cook? Who else is involved in this decision? Who has the final say?</li> </ul> <p><b>What about cleaning or other household chores? Who decides what work needs to be done?</b></p>

	<ul style="list-style-type: none"> <li>How do you decide what to do? Who else is involved in this decision? Who has the final say?</li> </ul> <p><b>What about buying this for the household (big or small)? Who decides what to buy?</b></p> <ul style="list-style-type: none"> <li>How do you decide what to buy? Who else is involved in this decision? Who has the final say?</li> </ul> <p><b>What about childcare? Who decides how you should raise or take care of your children? What about disciplining children?</b></p> <ul style="list-style-type: none"> <li>How do you decide what to do? Who else is involved in this decision? Who has the final say?</li> </ul> <p><b>What about agricultural work? Work outside the home? Participating in community groups? Traveling outside the home? What other things do you do that require decisions to be made?</b></p> <p><b>What kinds of things do you decide on without your husband? What kinds of things do you and your husband decide on together? What kinds of things does your husband decide on alone? What other people in your household contribute?</b></p>
3.	<p><i>[Based on the key decisions/parts of the woman's day highlighted above: cooking, household chores, buying things, childcare, agricultural work, work outside the home, participating in community groups, traveling outside the home, other]:</i> <b>How often do you talk to your husband about [X topic]?</b></p> <ul style="list-style-type: none"> <li>For each [X]: Who initiates these conversations? What did/do you talk about?</li> </ul>
4.	<p><b>When was the last time you saw your natal family (e.g. Mother, father, sisters, brothers)?</b></p> <ul style="list-style-type: none"> <li>How often do you see or talk to them? Who plans these meetings? Why do you reach out to them, or why do you think they reach out to you? What do you do with them? What do you talk about?</li> <li>Do you see or talk to your natal family more or less often when your husband is away?</li> </ul> <p><b>When was the last time you saw your husband's family (e.g. Mother-in-law, father-in-law, sister- or brother-in-law)?</b></p> <ul style="list-style-type: none"> <li>How often do you see or talk to them? Who plans these meetings? Why do you reach out to them, or why do you think they reach out to you? What do you do with them? What do you talk about?</li> <li>Do you see or talk to your husband's family more or less often when he is away?</li> </ul> <p><b>Are there women who you share chores/duties with in your community? What about women who you talk to in your community?</b></p> <ul style="list-style-type: none"> <li>When was the last time you talked or worked with these women? Who plans these meetings? What do you do with them? What do you talk about?</li> <li>Do you see or talk to these women more or less often when your husband is away?</li> </ul>



5.	<p><b>When was the last time your partner left your home to live somewhere else for the purposes of work?</b></p> <ul style="list-style-type: none"> <li>Was this the first time he had migrated? Is he still away now? What does he do there? How long was it planned for him to work away from home? Where did/does he go?</li> </ul>
6.	<p><b>Why did your partner migrate?</b></p> <ul style="list-style-type: none"> <li>How was it decided that he would migrate/leave home for work? Do you think your husband would have left if you had asked him to stay?</li> </ul>
7.	<p><b>How did you feel when your partner left?</b></p> <ul style="list-style-type: none"> <li>What was a main worry or concern you had about him leaving? What was a main worry or concern you had while he was away?</li> <li>How did you communicate with him while he was gone?</li> </ul>
8.	<p><b>Thinking about your life when your husband is away, can you walk me through your typical day when your husband was away last time?</b> <i>[Note: If husband currently away, use present tense.]</i></p> <ul style="list-style-type: none"> <li>What took up most of your day? <ul style="list-style-type: none"> <li>Who participated in cooking? Cleaning? Other household chores? Childcare? Agricultural work? Work outside the home? Attendance at community groups/meetings?</li> </ul> </li> <li>What did your husband do?</li> <li>Were there some days that differed? For example, how did market days differ? Festivals/holidays? <i>[If participant has children]</i>: What about days when the children were/were not in school?</li> </ul> <p><b>How does your typical day differ when your partner is away compared to when your partner is home? How is it similar?</b></p>
9.	<p><b>Tell me what it was like in your household after your partner left. How did it change? How did it stay the same?</b></p> <ul style="list-style-type: none"> <li>What did you do differently? What did your husband do differently? What roles/responsibilities stayed the same? What new roles/responsibilities did you take on? <ul style="list-style-type: none"> <li><i>[Note: Examples include childrearing responsibilities like school, illness, discipline, buying them things, etc.]</i></li> </ul> </li> <li>How did your living situation (e.g. who you lived with) change when your partner migrated?</li> <li>Have you ever been pregnant while your partner was away? Were any of your children born while your partner was away? What was that/were those experience(s) like?</li> <li>Did you have more or less money once your partner migrated? What about when he came back?</li> </ul>
10.	<p><i>[Earlier we discussed what you do on a typical day and decisions you make about cooking, household chores, buying things, childcare, agricultural work, work outside the home, participating in community groups, traveling outside the home, etc.]</i> <b>While your husband was migrating this most recent time, what decisions did you have to make alone that you found particularly difficult?</b></p>

	<ul style="list-style-type: none"> <li>• What about how to educate your children? How to feed them? What things to buy for your children? How to care for them when they were sick?</li> <li>• What about problems in the household? Dealing with the earthquake? Taking care of farmland or animals? <ul style="list-style-type: none"> <li>• <i>[For each decision]</i>: Why was it difficult? Who did you talk to about it? What did you decide to do? How did you decide to do [X]? Who had the final say?</li> </ul> </li> </ul> <p><b>What decisions did you have to make alone that you found particularly easy?</b></p> <ul style="list-style-type: none"> <li>• What was/were that/those decision(s)? <ul style="list-style-type: none"> <li>• <i>[For each decision]</i>: Why was it easy? Who did you talk to about it? What did you decide to do? How did you decide to do [X]? Who had the final say?</li> </ul> </li> </ul> <p><b>What decisions did you and your spouse make together that you found particularly difficult/easy?</b></p> <ul style="list-style-type: none"> <li>• What was/were that/those decision(s)? <ul style="list-style-type: none"> <li>• <i>[For each decision]</i>: Why was it difficult/easy? Who did you talk to about it? What did you decide to do? How did you decide to do [X]? Who had the final say?</li> </ul> </li> </ul> <p><b>When your husband returned home, was there anything about your household that your husband was surprised/upset/happy about that had happened while he was gone? What was it?</b></p>
11.	<p><b>How often were you able to contact or talk with your partner while he was away this last time?</b></p> <ul style="list-style-type: none"> <li>• How difficult or easy was it for you to talk with him while he was away? What issues were easier to talk to him about while he was away? What issues were harder to talk to him about while he was away?</li> </ul>
12.	<p><b>Earlier you said that you talk (more/less) with your natal family when your partner is away.</b></p> <ul style="list-style-type: none"> <li>• Why do you think that is?</li> <li>• Why do you reach out to them when he is away, or why do you think they reach out to you while he is away?</li> <li>• What do you do with them while he is away? What do you talk about?</li> </ul> <p><b>Earlier you said that you talk (more/less) with your husband's family when your partner is away.</b></p> <ul style="list-style-type: none"> <li>• Why do you think that is?</li> <li>• Why do you reach out to them when he is away, or why do you think they reach out to you while he is away?</li> <li>• What do you do with them while he is away? What do you talk about?</li> </ul>

	<p><b>Earlier you said that you talk (more/less) with other women in the community when your husband is away.</b></p> <ul style="list-style-type: none"> <li>• Why do you think that is?</li> <li>• Why do you reach out to them when he is away, or why do you think they reach out to you while he is away?</li> <li>• What do you do with them while he is away? What do you talk about?</li> </ul>
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<p><i>Domain #2: Family planning behaviors and reproduction. These questions will be posed during the first interview. The purpose of questions in this section is to examine how family planning decisions, including decisions around family size, attitudes towards family size, and contraceptive use, are impacted by a partner's migration. Does migration increase mutuality, cooperation, or interdependence in family planning decisions, does it lead to more tension, or does it shift partners' interactions in another way? How do women whose partners migrate for work discuss reproduction and their decisions to have, or not have, children?</i></p> <p><i>[This description is for the research assistant only and will not be read to participants.]</i></p>	
13.	<p><b>Before you got married and had a family, what did you think your household and marriage would be like?</b></p> <ul style="list-style-type: none"> <li>• What did you think your relationship with your husband would be like?</li> <li>• Did you expect your spouse to migrate for work?</li> <li>• What were you expectations for the number of children you wanted?</li> <li>• How does your life now compare to this? How is your role in your household the same/different than you thought it would be? How do you think it is better? How do you think it is worse?</li> </ul> <p><b>Earlier you said that you have [X] children. How many more children would you like to have/how many did you want to have? How many boys and how many girls?</b></p> <p><b>How close would you like to have these children/If you could go back in time, how close would you have liked to have these children?</b></p> <ul style="list-style-type: none"> <li>• How have your family size expectations or attitudes changed? Did your family size expectations or attitudes change after your partner migrated?</li> </ul>
14.	<p><b>Do you or your husband do anything to control the size of your family?</b></p> <ul style="list-style-type: none"> <li>• What do you do?</li> </ul>
15.	<p><b>What contraceptive method, if any, would make sense for you to use if you did not want any more children?</b></p> <ul style="list-style-type: none"> <li>• How would this change if you did not want any more children but your partner was migrating? Have you/would you continue using this method if your husband was away?</li> </ul> <p><b>What about if you wanted to space out your pregnancies?</b></p> <ul style="list-style-type: none"> <li>• Have you/would you continue using this method if your husband was away?</li> </ul>
16.	<p><b>What do you think about using contraception while your husband is away?</b></p> <ul style="list-style-type: none"> <li>• What are the reasons, if any, to use contraception while he is away? How, if at all, does this differ from when he is living with you?</li> <li>• What barriers might you face to using contraception while he is away? How, if at all, do they differ from those faced when he is living with you? <ul style="list-style-type: none"> <li>• Does your mother-in-law approve of contraception? Would she approve of you using contraception when your husband is away?</li> </ul> </li> </ul>
17.	<p><b>Have you ever heard of any women using contraception while their spouses were away? What did you hear?</b></p> <ul style="list-style-type: none"> <li>• What did you think about that story? What have others said about it? Why might this woman/these women use contraception while their spouse was/were away?</li> </ul>

<p><i>Domain #3: Existing public health programming. These questions will be posed during the second follow-up interview. The purpose of questions in this section is to investigate how women with labor migrant partners experience and understand existing public health messages and programs within their community. In addition, these questions also explore health information seeking, trust of information sources, and communication with others about these topics. How do these women interpret and engage with public health program messages on family planning and family size in the context of their partner's migration? How do women's interactions with their extended families and local communities change as a result of their partner's mobility?</i></p> <p><i>[This description is for the research assistant only and will not be read to participants.]</i></p>	
18.	<p><b>What health programs/campaigns exist in your village?</b></p> <ul style="list-style-type: none"> <li>• What are their topics/messages?</li> <li>• What do you think the purposes/goals of them are?</li> </ul>
19.	<p><b>How are these programs relevant to the issues you face? How are they relevant to the lives of women whose partners are migrating?</b></p> <ul style="list-style-type: none"> <li>• How do you think participating in these programs might affect your health? <i>[If has children]:</i> Your infants' health? Your children's health?</li> </ul>
20.	<p><b>Do the women/families in these programs/campaigns resemble you or your family?</b></p> <ul style="list-style-type: none"> <li>• Are they relevant to other women whose partners are migrating?</li> </ul>
21.	<p><b>What do you like about these programs? What would you change?</b></p>
22.	<p><b>From where do you seek information about health topics like family planning, maternal health, child health, nutrition, or other topics?</b></p> <ul style="list-style-type: none"> <li>• Who do you talk to the most? What health topics do you talk to them about? What health topics do you not talk about? Why? Are there any health topics you feel uncomfortable talking about? Why? Do they approve of contraception?</li> <li>• What information sources do you trust the most for health topics? Why?</li> <li>• What about when your partner is migrating for work?</li> </ul>
23.	<p><b>Who do you talk to the most about family planning or other health topics when your partner is at home?</b></p> <ul style="list-style-type: none"> <li>• Who do you talk to the most? What health topics do you talk to them about? What health topics do you not talk about? Why? Are there any health topics you feel uncomfortable talking about? Why? What information sources do you trust the most for health topics? Why?</li> <li>• What about when your partner is migrating for work?</li> </ul>

## Curriculum Vitae

### ***CURRICULUM VITAE***

*Zoé Mistrale Hendrickson*

#### **PERSONAL DATA**

*Date of birth*

7 November 1988

*Place of birth*

Exeter, New Hampshire, United States

*E-mail*

zhendri1@jhu.edu

#### **EDUCATION AND TRAINING**

*PhD final seminar and defense completed/May 2017*

*Johns Hopkins  
Bloomberg School of Public Health  
Health, Behavior, and Society Department  
Grade Point Average: 4.00*

*B.A./May 2011*

*Swarthmore College  
Highest Honors distinction, Honors Program  
Honors major in Sociology/Anthropology  
Honors minor and course major in Biology  
Phi Beta Kappa  
Grade Point Average: 3.87*

#### **PROFESSIONAL EXPERIENCE**

*Research Assistant, Oct 2013 – present, Johns Hopkins Center for Communication Program*

- Contributed to the development of quantitative survey instruments for the Nepal Health Communication Capacity Collaborative (HC3) Project, which aims to use communication strategies to increase access to and use of family planning methods in Nepal. Analyzed quantitative findings for the Nepal HC3 Project and contributed to report writing.
- Worked with the Nepal HC3 Project to develop the interview guide for formative qualitative interviews with men and women of reproductive age in Nepal regarding reproductive health and family planning. Analyzed qualitative findings to inform the design of the Nepal HC3 Project and contributed to report writing.

- Analyzed quantitative secondary data from multiple interventions designed to address family planning and reproductive health. Explored the complex relationship among gender roles and norms, family planning, and reproductive health outcomes.
- Collaborated with researchers in Côte d'Ivoire to perform qualitative data analysis in French, including the development of a coding framework, application of codes, thematic analysis, and report writing, on the effects of masculinity and gender norms on men's engagement in HIV prevention and treatment.
- Worked with an international team of researchers to perform qualitative data analysis in French, including the development of a coding framework, application of codes, thematic analysis, and report writing, on the determinants of quality in healthcare settings post-Ebola in Guinea. Assisted in the design of the qualitative data analysis plan for this project.
- Assisted in the adaptation, design, and drafting of a gender transformative communication tool, *African Transformation*, to the Zambia floodplain in collaboration with Worldfish. Analyzed qualitative data gathered from focus group discussions (FGDs) in Zambia to inform the development of gender-sensitive quantitative measures for use with the gender transformative communication tool. Performed a comprehensive literature review and contributed to a final report on existing communication interventions addressing gender equity and social inclusion (GESI) in aquatic agricultural systems (AAS).
- Compiled evidence on gender dynamics and their relationship with behavior change and health outcomes as part of the drafting and development of an implementation kit, publicly available online, about how to integrate gender into social and behavior change communication (an HC3 project). Incorporated social and behavioral theory into an implementation kit, publicly available online, on behavior change in emergency settings.
- Developed comprehensive search strings, assisted with preliminary data extraction, and contributed to a final report and published literature review on community-level factors and the HIV/AIDS treatment cascade (an HC3 project).

*Research Assistant, Sept 2015 – present, Johns Hopkins Bloomberg School of Public Health*

- Gathered and analyzed publication data for the Health, Behavior and Society department.
- Calculated citation indices such as the H-index, i10-index, M-index, as well as other quantitative metrics of faculty research and publications.
- Maintained publication lists and performed descriptive analyses of publication content and topic area for department use.

*Junior Research Assistant, July 2012 – Aug 2013, Yale University School of Medicine*

- Developed comprehensive search strings for preliminary data extraction for research on non-communicable disease outcomes and health disparities in the Eastern Caribbean.
- Systematically developed and executed a search string and assisted with data extraction for a systematic review according to PRISMA guidelines.
- Participated in review of cognitive interview data to improve phrasing of items for a survey about patient-reported experiences of discrimination.
- Assisted in the design and development of recruitment materials (i.e. postcards, envelopes, etc.) for pilot testing of a survey.
- Provided organizational, technological, and written support for project managers and directors of research projects at the Equity Research and Innovation Center (ERIC). Assisted in initial research, writing, and editing of grant proposals for healthcare equity projects. Assisted with initial web presence development and social media for ERIC and its projects.

## **PROFESSIONAL ACTIVITIES**

*Society membership*

Member, American Public Health Association

## **HONORS AND AWARDS**

*Awards*

*Research Assistant Award, May 2016, Health, Behavior & Society Department, Johns Hopkins Bloomberg School of Public Health*

- Recipient of award designed to recognize research assistants in the Health, Behavior & Society Department for their contributions to research projects within the department.

*Teaching Assistant Award, May 2016, Health, Behavior & Society Department, Johns Hopkins Bloomberg School of Public Health*

- Recipient of award designed to recognize teaching assistants in the Health, Behavior & Society Department for their contributions and assistance in the classroom.

*Sophie and William Bramson Prize, May 2011, Sociology/Anthropology Department, Swarthmore College*

- Recipient of award recognizing the independent ethnographic research and analysis performed in my Senior Honors Thesis.



*2011 Leo M. Leva Memorial Prize, May 2011, Biology Department, Swarthmore College*

- Recipient of award recognizing contributions and devotion to the Swarthmore Biology Department as a Biology major and as a hardworking employee who worked as a laboratory assistant, science associate, and tutor.

## **PUBLICATIONS**

### *Journal articles*

Underwood, C., **Hendrickson, Z.**, Van Lith, L.M., Lengwe Kunda, J.E., & Mallalieu, E.C. (2014). Role of community-level factors across the treatment cascade: a critical review. *J Acquir Immune Defic Syndr*, 66 Suppl 3, S311-318. doi: 10.1097/qai.0000000000000234

### *Other*

Underwood C.R. and **Hendrickson Z.** (2014). Communication interventions for gender equality and social equity in aquatic agricultural systems: A review of the literature. Penang, Malaysia: CGIAR Research Program on Aquatic Agricultural Systems. Program Report: AAS-2014-36.

Underwood, C., **Hendrickson, Z.**, Leddy, A. (2015). Gender Equity and Family Planning Outcomes in Health Communication Programs: A Secondary Data Analysis. Health Communication Capacity Collaborative: Full Report. Retrieved from <http://healthcommcapacity.org/wp-content/uploads/2015/04/Gender-Equity-and-Family-Planning-Outcomes-in-Health-Communication.pdf>

Underwood C.R. and **Hendrickson Z.M.** (2016). Health Communication Capacity Collaborative (HC3) Nepal Baseline Survey 2015: Focus on findings for married women ages 18-29. Johns Hopkins Center for Communication Programs Working Paper. Baltimore, Maryland.

Underwood, C.R., **Hendrickson Z.M.**, Dayton, L., Lohani J.R., Upreti K., and Hess, R. (2016). Formative Research for the HC3 Nepal Project: Findings from Qualitative Interviews. Johns Hopkins Center for Communication Programs Working Paper. Baltimore, Maryland.

## TEACHING

### *Classroom instruction*

*Teaching Assistant, Jan 2015 – present, Johns Hopkins Bloomberg School of Public Health*

- Provided technical and organizational support for *Translating Research into Public Health Programs*, a popular JHSPH Health, Behavior and Society department course focused on methods of evaluation that address issues of cost effectiveness, program implementation, and the use of science in public health decision-making.
- Assisted faculty by maintaining the course webpage and evaluating students.
- Aided students in understanding how to perform cost-utility analyses, calculate quality-adjusted life years (QALYs), discount future monetary values, among other practical skills essential to translating public health research into practice.

*Teaching Assistant, Oct 2014 – Dec 2015, Johns Hopkins Bloomberg School of Public Health*

- Provided technical and organizational support for the research and design course required of all students in the JHSPH Health, Behavior and Society department.
- Assisted faculty by preparing and organizing lecture materials, maintaining the course webpage, and evaluating students.
- Aided students in understanding key concepts in research design.
- Developed and gave a lecture on how to critique scientific publications.

*Teaching Assistant, July 2014 – Oct 2014, Johns Hopkins Bloomberg School of Public Health*

- Participated in syllabus and course development for the flagship course on social and behavioral sciences in public health for the Health, Behavior and Society Department.
- Assisted faculty by preparing and organizing lecture materials, maintaining the course webpage, and evaluating students.
- Aided students in understanding the importance of social and behavioral theory for public health research and practice.

*English Language Assistant, Oct 2011 – April 2012, French Ministry of Education, France*

- Successfully developed, organized, and employed unique lesson plans that taught conversational and written English language skills to French children.
- Used conversational English to highlight cultural practices and diversity.
- Responsible for English language work in three diverse schools, where I worked with children 6 – 10 years old.

*Laboratory Assistant, Aug 2008 – May 2011, Swarthmore College*

- Prepared and organized laboratory materials for introductory molecular and organismal biology courses.
- Assisted instructors during lab by explaining biological concepts and laboratory techniques to fellow college students.
- Aided students in statistical analysis and interpretation of laboratory data by hosting study sessions outside of class.

*Dean's Tutor in Biology, Jan 2009 – Dec 2010, Swarthmore College*

- Shared study techniques and explained particularly difficult scientific concepts in one-on-one sessions with students enrolled in the introductory molecular and organismal biology classes.

*Biology 002 Science Associate, Jan 2009 – May 2009, Swarthmore College*

- Aided students in their understanding of lecture materials by attending introductory organismal biology lectures and hosting and facilitating study group meetings outside of class with students.
- Provided essential feedback to faculty about their courses and students' experiences in weekly meetings.

## **RESEARCH GRANT PARTICIPATION**

*Dissertation Enhancement Award, Jan 2016, Center for Qualitative Studies in Health and Medicine*

- **Zoé Hendrickson (PI), \$2,000.00**
- Award designed to support qualitative research in the field of public health through support for dissertation fieldwork and data collection.
- Research examined the effects of a spouse's migration on women's lives in Nepal through a focus on gender dynamics in the household and reproductive decisions.
- Responsible for all grant operations and paperwork. Responsible for all fieldwork and data collection performed in conjunction with this grant.

*Doctoral Distinguished Research Award, Aug 2015, Health, Behavior & Society Department, Johns Hopkins Bloomberg School of Public Health*

- **Zoé Hendrickson (PI), \$4,000.00**
- Award dedicated to supporting dissertation expenses for PhD candidates in the dissertation phase of their programs.
- Research examined the effects of a spouse's migration on women's lives in Nepal through a focus on gender dynamics in the household and reproductive decisions.
- Responsible for all grant operations and paperwork. Responsible for all fieldwork and data collection performed in conjunction with this grant.

*William L. Hugarir Summer Research Stipend on Population Issues, April 2010, Sociology and Anthropology Department, Swarthmore College*

- **Zoé Hendrickson (PI), \$1,000.00**
- This 2010 summer research grant supported fieldwork costs for social science research on population issues.
- Research surrounded the experiences of female health workers in women's health clinics in New Hampshire for Honors undergraduate thesis: *The Body, The Clinic: Female health workers' experiences of the everyday in the space of women's health clinics*.
- Responsible for all grant operations and paperwork. Responsible for all fieldwork and data collection performed in conjunction with this grant.

## PRESENTATIONS

*Scientific meetings (\* Presenting author)*

Dayton, L., **Hendrickson, Z.**, Hess, R., & Underwood, C. Family Planning Use and Decision-Making among High Unmet Need Groups in Nepal. Poster presented at the Johns Hopkins Bloomberg School of Public Health Center for Global Health's Global Health Day; 02 April 2015; Feinstone Hall, Baltimore, MD.

Underwood, C., **Hendrickson, Z.**, Lohani, J. R., Dayton, L., Hess, R. Gender, Power and Communicative Action: Qualitative findings from selected Nepali communities. Oral presentation presented at the International SBCC Summit 2016: Elevating the Art & Science of SBCC; 08 February 2016; Addis Ababa, Ethiopia.

Underwood, C., **Hendrickson, Z.**, Alhumaid, N., Gaith, T.A. Health communication and non-communicable diseases: Associations between health communication recall and intermediate outcomes in Saudi Arabia. Poster presented at the International SBCC Summit 2016: Elevating the Art & Science of SBCC; 09 February 2016; Addis Ababa, Ethiopia.

**Hendrickson, Z.**, Lohani, S., Underwood, C. How does your life change when he leaves? Gender dynamics and agricultural work in the context of labor migration and the recent earthquake in Nepal. Poster presentation presented at the Nutrition Innovation Lab 4<sup>th</sup> Annual Symposium; 19 July 2016; Kathmandu, Nepal.

**Hendrickson, Z.\***, Dayton, L., Hess, R., Underwood, C. "They tell me they will use pills when their husband will come back": Complexities of timing of contraceptive use in Nepal. Poster presentation presented at the American Public Health Association 2016 Annual Meeting; 31 October 2016; Denver, Colorado.

Underwood, C., Kc, Shreejana, Jacoby, C., Leslie, L., **Hendrickson, Z.\***, Leddy, A. Enabling Nutrition, Gender, and Social Change: Evidence from a Study of Nepal's "Bhanchhin Aama" Campaign. Oral presentation presented at the American Public Health Association 2016 Annual Meeting; 1 November 2016; Denver, Colorado.

Wang, K., **Hendrickson, Z.M.**, Thompson, T.A., Oladele, C., Brandt, C., Nunez-Smith, M. Exploring healthcare mobility among vulnerable populations. Poster presentation presented at the American Public Health Association 2016 Annual Meeting; 1 November 2016; Denver, Colorado.

Underwood, C., Hess, R., Lohani, J., **Hendrickson, Z.\*** “They are educated . . . they have only two children”: Emerging gender and family size norms in Nepal. Oral presentation presented at the American Public Health Association 2016 Annual Meeting; 2 November 2016; Denver, Colorado.

**Hendrickson, Z.\***, Lohani, S., Underwood, C. What do we mean by empowerment? Exploring the intersection of migration and household gender dynamics in Nepal. Oral presentation presented at the International Council on Women’s Health Issues; 9 November 2016; Baltimore, Maryland.

Underwood, C., Leddy, A., **Hendrickson, Z.** Direct and Indirect Effects of Communication Interventions: Gender constructs and modern contraceptive use. Oral presentation presented at the International Communication Association 67<sup>th</sup> Annual Conference; 25-29 May 2017; San Diego, California.

## **ADDITIONAL INFORMATION**

### *Personal statement of research and research objectives*

Weaving together training in sociology/anthropology, biology, and public health, my research explores how social structures are implicated in everyday experiences of health and how people seek care. With a focus on reproductive health in an increasingly mobile, globalized world, my research investigates relationships between migration and household gender dynamics and the implications these may have on reproductive decision-making, family planning practices, and healthcare seeking. My dissertation research explores this topic in Nepal, where nearly one third of women are living separately from their spouses due to labor migration. Evidence gathered will inform and improve future public health programs designed to address the unique family planning needs of labor migrants and their partners in Nepal and elsewhere around the world.

### *Keywords*

Migration; mobility; household gender dynamics; gender; women’s empowerment; gender equity; gender equality; gender transformative interventions; reproductive health; family planning; contraception; healthcare seeking; service utilization; social theory; qualitative methods; quantitative methods; Nepal (basic Nepali speaker); Francophone countries (French speaker).